NOT TO BE ISSUED
OUT OF THE LIBRARY.

PAINTING SCULPTURE AND ARCHITECTURE AS REPRESENTATIVE ARTS

701.17
Ray/Pai.
63915

00063915

BOMBAY BRANCH

OF THE

ROYAL ASIATIC SOCIETY.

Digitized with financial assistance from
Observer Research Foundation
on 01 June, 2019

Professor Raymond's System of COMPARATIVE ÆSTHETICS

I.—Art in Theory. 8°, cloth extra $1.75

"Scores an advance upon the many art-criticisms extant. . . . Twenty brilliant chapters, pregnant with suggestion."—*Popular Science Monthly.*

"A well grounded, thoroughly supported, and entirely artistic conception of art that will lead observers to distrust the charlatanism that imposes an idle and superficial mannerism upon the public in place of true beauty and honest workmanship."—*The New York Times.*

"His style is good, and his logic sound, and . . . of the greatest possible service to the student of artistic theories."—*Art Journal* (London).

II.—The Representative Significance of Form. 8°, cloth extra. $2.00

"A valuable essay. . . . Professor Raymond goes so deep into causes as to explore the subconscious and the unconscious mind for a solution of his problems, and eloquently to range through the conceptions of religion, science and metaphysics in order to find fixed principles of taste. . . . A highly interesting discussion."—*The Scotsman* (Edinburgh).

"Evidently the ripe fruit of years of patient and exhaustive study on the part of a man singularly fitted for his task. It is profound in insight, searching in analysis, broad in spirit, and thoroughly modern in method and sympathy."—*The Universalist Leader.*

"Its title gives no intimation to the general reader of its attractiveness for him, or to curious readers of its widely discursive range of interest. . . . Its broad range may remind one of those scythe-bearing chariots with which the ancient Persians used to mow down hostile files."—*The Outlook.*

III.—Poetry as a Representative Art. 8°, cloth extra $1.75

"I have read it with pleasure, and a sense of instruction on many points."—*Francis Turner Palgrave, Professor of Poetry, Oxford University.*

"Dieses ganz vortreffliche Werk."—*Englische Studien, Universität Breslau.*

"An acute, interesting, and brilliant piece of work. . . . As a whole the essay deserves unqualified praise."—*N. Y. Independent.*

IV.—Painting, Sculpture, and Architecture as Representative Arts. With 225 illustrations. 8° $2.50

"The artist will find in it a wealth of profound and varied learning; of original, suggestive, helpful thought . . . of absolutely inestimable value."—*The Looker-on.*

"Expression by means of extension or size, . . . shape, . . . regularity in outlines . . . the human body . . . posture, gesture, and movement, . . . are all considered . . . A specially interesting chapter is the one on color."—*Current Literature.*

"The whole book is the work of a man of exceptional thoughtfulness, who says what he has to say in a remarkably lucid and direct manner."—*Philadelphia Press.*

V.—The Genesis of Art Form. Fully illustrated. 8° . . $2.25

"In a spirit at once scientific and that of the true artist, he pierces through the manifestations of art to their sources, and shows the relations, intimate and essential, between painting, sculpture, poetry, music, and architecture. A book that possesses not only singular value, but singular charm."—*N. Y. Times.*

"A help and a delight. Every aspirant for culture in any of the liberal arts, including music and poetry, will find something in this book to aid him."—*Boston Times.*

"It is impossible to withhold one's admiration from a treatise which exhibits in such a large degree the qualities of philosophic criticism."—*Philadelphia Press.*

VI.—Rhythm and Harmony in Poetry and Music. Together with **Music as a Representative Art.** 8°, cloth extra . $1.75

"Prof. Raymond has chosen a delightful subject, and he treats it with all the charm of narrative and high thought and profound study."—*New Orleans States.*

"The reader must be, indeed, a person either of supernatural stupidity or of marvellous erudition, who does not discover much information in Prof. Raymond's exhaustive and instructive treatise. From page to page it is full of suggestion."—*The Academy* (London).

VII.—Proportion and Harmony of Line and Color in Painting, Sculpture, and Architecture. Fully illustrated. 8° . $2.50

"Marked by profound thought along lines unfamiliar to most readers and thinkers. . . . When grasped, however, it becomes a source of great enjoyment and exhilaration. . . . No critical person can afford to ignore so valuable a contribution to the art-thought of the day."—*The Art Interchange* (N. Y.).

"One does not need to be a scholar to follow this scholar as he teaches while seeming to entertain, for he does both."—*Burlington Hawkeye.*

"The artist who wishes to penetrate the mysteries of color, the sculptor who desires to cultivate his sense of proportion, or the architect whose ambition is to reach to a high standard will find the work helpful and inspiring."—*Boston Transcript.*

G. P. PUTNAM'S SONS, New York and London

PAINTING, SCULPTURE AND ARCHITECTURE

AS REPRESENTATIVE ARTS

63915

AN ESSAY IN

COMPARATIVE ÆSTHETICS

BY

GEORGE LANSING RAYMOND, L.H.D.

PROFESSOR OF ÆSTHETICS IN THE COLLEGE OF NEW JERSEY AT PRINCETON; AUTHOR OF "ART IN THEORY," "THE REPRESENTATIVE SIGNIFICANCE OF FORM," "POETRY AS A REPRESENTATIVE ART," "THE GENESIS OF ART-FORM," "RHYTHM AND HARMONY IN POETRY AND MUSIC," "PROPORTION AND HARMONY OF LINE AND COLOR IN PAINTING, SCULPTURE, AND ARCHITECTURE," "THE ESSENTIALS OF ÆSTHETICS," ETC.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

SECOND EDITION, REVISED

G. P. PUTNAM'S SONS

NEW YORK
27 WEST TWENTY-THIRD STREET

LONDON
24 BEDFORD STREET, STRAND

The Knickerbocker Press

1909

00063915

COPYRIGHT, 1895
BY
G. P. PUTNAM'S SONS
Entered at Stationers' Hall, London

O
701.17
Raw / Pai
63915

The Knickerbocker Press, New Rochelle, N. Y.

PREFACE.

THIS book contains an application to the arts of sight of the principles unfolded in the volume entitled "Art in Theory." For the benefit of readers not acquainted with that volume, its general conclusions have been briefly reviewed in the first two chapters of this, which chapters, without lessening the intelligibility of the rest of the discussion, may be omitted by those not interested in the philosophy of the subject. In connection with this review, and also, to an extent, in other parts of the volume, the various factors entering into visible representation have been correlated to those entering into audible representation as already unfolded in the volume entitled "Poetry as a Representative Art" and in the essay on "Music as a Representative Art," published in the volume entitled "Rhythm and Harmony in Poetry and Music."

As for visible representation considered by itself, the principles underlying this have, for the first time, been shown to be the same as applied not only in the higher arts of painting, sculpture, and architecture, but also in the art intimately connected with the first two, of pantomime or gesture, as well as in the methods of reading character, hardly less intimately connected with them, which are employed with various degrees of success in physiology, physiognomy, phrenology, and palmistry.

Like the other books of this series, the present is amply illustrated; in part to enable those who cannot obtain access to galleries or libraries to understand exactly what is meant by its statements; in part to enable them, through numerous examples, to come to a perception of the truth of these statements. This latter result is by no means easy to attain. Few things require more time, if for no other reason, because they necessitate experience, than learning to recognize, put together, spell out, and read fluently the symbols representing the subtle language of the arts whether of sound or of sight. To conduct the reader through certain preliminary stages of this process, is the object of this book. It is acknowledged that the pathway through which he will be led is a little unusual, and so too the conception of representative significance at which he is expected to arrive. But it is hoped that he will not therefore be deterred from giving the treatment candid consideration.

This remark applies not only to the general reader, but even to some acknowledged specialists. I once went over the motives of Wagner with the most broadly cultured musician whom I knew, and I found that while he perceived, at once, the representative elements in what are ordinarily termed imitative passages, he failed to perceive them, till pointed out to him, in many other passages so unmistakably developed from the intonations of speech that to me they seemed to talk—of course only in the sense of voicing the trend of emotive processes which alone is possible to music—almost as plainly as if the notes were words. The fact struck me, at first, as strange, my own musical education having been limited, aside from vocal studies, to seven or eight years' practice on the piano, a course in thorough bass and harmony, and about

two years' application of them to an organ played in church,—all before I was out of my teens. But upon reflection, I understood that what he lacked was my twenty years' experience in teaching the melody of speech. So with the significance of visible form. One whose experience has forced him, as mine has, to the conclusion that every shape of the human body, natural or assumed, has a meaning peculiar to itself, though possibly beyond even an expert's power of interpretation, finds himself, very soon, according to the principle of association, drawing the same conclusion with reference to all shapes, whether human or not human. Those who think it not essential to discuss the general accuracy of this conclusion, as applied to all phenomena audible or visible; or who imagine that, if true, art has no mission in revealing and emphasizing it, have, simply, not learned all that life is designed to teach them; or those who conceive that the methods through which art can fulfil this mission can be apprehended and appreciated without their stopping to think over each detail of the subject, to examine the exemplifications of it, and to apply many original tests of their own to it, have not yet begun to learn the methods through which life can teach them anything of deep importance.

Nor can it be said that, at the present time, there is no need of a book dealing with this subject, or with the other subjects which have been treated in this series of volumes. Everybody who reads much is probably aware that, as applied to the plastic arts, statements go practically unchallenged which assert—to quote from reviews upon æsthetic theories published in prominent journals—that "Art is the application to *anything*,"—the italics are quoted—"in the spirit of play and for pleasure only, of

the principle of proportion," or that "Art is simply, wholly, and entirely a matter of form . . . the best critical judgment nowadays assumes the identity of the art-form with the art-meaning." But few are aware that the result has followed which a logical mind would at once have anticipated, namely, that the same theory is applied to all the arts—to poetry, for instance. If they did know this, they might begin to surmise the danger of the situation. Think of the literary prospects of a country, of the possibilities of its receiving any inspiring impulses from its poets at a period when new authors, writing with the acknowledged motive of Dante, Milton, or Wordsworth, would, for this reason and for no other reason, fail to commend themselves to the leaders of literary opinion! Yet one who has followed the views expressed in what may be termed the professional critical journals of our country, would not be far astray in claiming that this accurately describes our own condition. The same France from which we have derived the notion that significance is not essential to painting, has also taught us, and the lesson has been accepted and subtly assimilated so as to become, almost unconsciously to ourselves, a part of the literary belief of some of us, that it is not essential, either, to poetry. In fact, Max Nordau's statement in "Degeneration," that "The theory of the importance of form, of the intrinsic value of beauty in the sound of words, of the sensuous pleasure to be derived from sonorous syllables without regard to their sense, and of the uselessness and even harmfulness of thought in poetry has become decisive in the most recent development of poetry," could be applied to France not only but to our own country. What Nordau means he indicates by quotations,—this, for instance, from Théophile Gautier: "For the poet words

have in themselves, and outside the sense they express, a beauty and a value of their own. . . . Nothing is less ideal than a poet." He "is a laborer; he ought not to have more intelligence than a laborer." Also this from Charles Baudelaire: "If the poet has pursued a moral aim, he has diminished his poetic power, and it is not imprudent to wager that his work will be bad. Poetry has not truth for its object, it has only itself." And this from Gustave Flaubert: "A beautiful verse meaning nothing is superior to a verse less beautiful meaning something," which latter has been echoed in England by Oscar Wilde, who apparently is able in more departments than one to get along without those dualities which ordinary mortals suppose to be desirable. "From time to time," he says, "the world cries out against some charming artistic poet because, to use its hackneyed and silly phrase, he has 'nothing to say.' But if he had something to say he would probably say it, and the result would be tedious. It is just because he has no new message that he can do beautiful work."

The reason why such writers fail to recognize the importance of representative significance is easy enough to understand. Art is a complex subject. Significance is no more essential in it than is technique; and the mere rudiments of this it takes years to master. As both Goethe and Longfellow have told us, the pathway to art, even if by this we mean merely the art of versifying, or of coloring with proficiency, is long. Unfortunately for many it is so very long that before they are fairly in sight of its termination they have apparently lost sight of everything else. Nevertheless the general, if not the æsthetic, public, upon whose judgment the rank of the art-work must ultimately depend, know and care little about technique, except so

far as it has enabled the artist to secure for his product a certain satisfactory representative effect. But this effect depends in some cases as much upon what may be termed the expressional norm chosen as the nucleus of development, as upon the method of its development; in other words, as much upon that which is significant in the work as upon that which is excellent in its form. As shown in Chapters IV. to VII. of "Art in Theory," successful art is always the insignia with which the play-impulse decorates that which before the decoration has shown in practical relations its right to receive it. Just as a successful drama is an artistic development of imagination at play with the words of natural conversation; so a successful melody is a development of the same at play with the intonations of natural conversation; and a successful picture, of the same at play with the outlines and colors of natural scenes. What imagination does is to elaborate the form, this being accomplished in our own day through carrying out the laws of complicated systems of rhythm, harmony, drawing, or coloring. But the forms that art, if high art, in each case elaborates, are forms of expressing thought and emotion.

If this statement be true, the theories of this book have a practical as well as a theoretical bearing. Some time ago I listened to a rendering by a college glee club of the "Merry Miller" chorus from DeKoven's "Rob Roy." The question and answer "What, Margery?—Ay, Margery," were sung in an unpardonably expressionless way; yet because true to the intonations of speech, they took the audience by storm; and I can now recall no melody of great popularity in which underneath all the decorative vestiture of the form, however much the pitch may be pushed up here or pulled down there, it is not possible to

detect general outlines true to certain first principles of vocal expression. Some melodies, indeed, like "Comin' thro' the Rye" can be talked off with absolute fidelity to every musical note. But if melody be thus developed from speech, the same must be remotely true of harmony for this, in its turn, as shown in Chapters XII. to XV. of "Rhythm and Harmony," is itself, in its incipiency, a development of melody.

It is true that it is said of the melodies of speech, as well as of the movements of gesture, such as are considered in the present volume, that their significance differs in different countries. But those who say this, as some have done, imagining the statement, however true, to involve a refutation of any principle advanced in this series of essays, merely show how superficially they have read them. As applied to music, for instance, such a statement is not made with reference to time, force, or volume—only with reference to pitch, as used in the inflections. But in "Rhythm and Harmony," pages 265 to 267, it is very carefully shown that the inflection is not representative of the phraseology but of the motive expressed in the phraseology, many instances being cited in which precisely the same phrases are rightly uttered with exactly opposite inflections. This being understood, the objection mentioned falls to the ground. When, for instance, for reasons which the reference just given will indicate, an American says to you at the table, "Will you please pass me the bread?" with a rising inflection on the last word, what is uppermost in his mind is to indicate his acknowledgment that your action in the matter is questionable; and that he leaves it open for you to do as you choose. But when an Englishman asks the same question, as he almost invariably does, with a falling

inflection, what is uppermost in his mind is to make an assertion with reference to his wishes, and to indicate, as, in other matters, he is apt to do to such an extent as to seem, at times, slightly dictatorial, that it is not open for you to differ from him in thinking that, if you are a gentleman, you are expected to do as he—gently—bids you. People of Southern Europe, even Irishmen, sometimes end what seem positive assertions with an upward turn of the voice. But they are not positive assertions. They are grammatical forms of assertion as uttered by men with habits acquired by being constantly contradicted, or, at least, obliged to subordinate their own views to those of others, who alone are supposed to have a right to speak with authority. Of course, such methods of intonation, once acquired, may be continued from father to son by imitation. But despite the tendency to this latter, they usually cease to be continued after social and religious conditions change. One generation of residence in America will train any foreigner, whatever his language, to express his decided sentiments just as in his own land his own babe, before learning to imitate, invariably does, without any such questionable suggestion. Again a Bedouin will beckon you toward himself with a quick movement of his hand, the palm of which is not turned up, as with us, but down. What does this form of gesture mean? Very clearly, that the Bedouin, while he wishes you nearer himself, is not opening his whole heart to you, or asking you to occupy a position on a social or sympathetic level with himself. On the contrary, unconsciously, perhaps, he is on his guard against you and intends to keep you in a safe and proper place—below him. See pages 156 to 161. In fact, the character of his gesture affords an almost posi-

tive proof of the hostile nature of those with whom he and his fathers have for years been accustomed to associate.

Similar explanations might show that other apparent exceptions to the principles unfolded in these essays furnish, when intelligently interpreted, the strongest possible confirmation of their universal applicability; though, of course, among the hundreds of illustrations used or suggesting themselves to the reader, it would be strange if some were not found which it would be difficult to reconcile with any principle whatever.

But it is hoped that exceptional cases which, possibly, on second thought, the author might explain, or the reader apprehend differently, will not deter any from a serious consideration of the principles themselves, the acceptance of which cannot fail to have an important influence upon all one's views either of art or of life. For, if true, they show that the poems, symphonies, paintings, statues, and buildings produced by the artist differ from the elementary forms of these produced before his appearance, mainly in the greater degree in which he has learned to read through forms, whether human or not, that which is in the soul of man and of all things. For one who practises art or enjoys it, or takes any interest in it whatever, though not beyond a perception that it is about him and has come to stay; and not only for such an one, but for all who live in a world surrounded by appearances which could awaken infinitely more interest, were it believed that every slightest feature of them might be recognized to be definitely significant and suggestive and, therefore, instructive and inspiring,—this, certainly, is a conception of art and of life and of the relations between them, which is worth holding.

PRINCETON, September, 1895.

CONTENTS.

I.

PAGE

CORRESPONDENCES BETWEEN THE PRINCIPLES OF REPRESENTATION IN THE ARTS OF SOUND AND OF SIGHT 1–13

The Higher Arts as All Representative—Of Mental Processes—Of Material Phenomena—The Principle of Correspondence by Way of Association and Comparison, as Applied to Language—Representation by Instinctive Exclamations—By Reflective Imitative Sounds—Poetry and Music as Developed from these Two Methods—Correspondences by Way of Association and Comparison in the Arts of Sight—Differences in the Ways in which the Two are Recognized and Used—The Instinctive and Reflective Tendencies as Respectively Manifested in Painting, Sculpture, and Architecture—The Emotive as a Combination of Both Tendencies—Illustrated by Facts.

II.

CORRESPONDENCES BETWEEN THE FACTORS OF REPRESENTATION IN THE ARTS OF SOUND AND OF SIGHT 14–22

Factors of Visible Representation to be Considered Separately and as Combined—Duration, Time, and Pauses in Sounds Correlated to Extension, Size, and Outlines in Shapes—Force, Gradation, and Regularity among Sounds Correlated to Similar Effects in Shapes—Measures, Rhythm, and Accent Correlated to Measurements Proportion and Shading—Pitch and Quality of Sounds Correlated to Effects of Color—Effect of Accent on the Pitch of Tones Correlated to that of Shading upon Color—Each Factor of Visible Effect Representative—Instinctive, Reflective, and Emotive Representation Illustrated as Applied to Extension or Size—As Applied to Shading and Color.

III.

PAGE

REPRESENTATION BY MEANS OF EXTENSION OR SIZE 23–38

Representation in Art Based upon Methods of Expressing Thought and Emotion through the Use of the Human Body—Size as Representing Heaviness, Strength, Immovability, Substantiality, or the Opposite—As Representing the Important, Influential, Dignified, or the Opposite—The Representation of these Conceptions Made Consistent with the Representation of Actual External Appearances through the Laws of Perspective as Indicating Nearness—Differences between Requirements of Representation in these Arts and in Music and Architecture—Similarity, Nevertheless, in the Methods of Representation—As Applied also to the Laws of Perspective—Recapitulation and Illustrations of these Methods as Applied to Size.

IV.

REPRESENTING BY MEANS OF SHAPE: THE ACCENTING OR SHADING OF OUTLINES 39–54

Force, Pitch, and Quality, as Exemplified in the Arts of Sound—Illustrations—Pause and Accent as Correlated to Outline and Shading—Touch or Handling as Differing in Strength, Gradation, and Regularity: Strength—Examples of Strength and Delicacy of Touch in Outline Sketches—Other Examples—The Same as Applied in Connection with Color—As Applied in Sculpture—As Applied in Architecture—The Importance of the Effects of Light and Shade in this Art.

V.

GRADATION IN THE OUTLINES OF SHAPES, CURVED, ANGULAR AND BOTH COMBINED 55–87

Meaning and Effect of Gradation as Applied to Outline—Effects of Gradation in the Arts of Sound—Corresponding Effects in the Arts of Sight—Three Methods of Describing the Outlines of a Form—Each Method Representative of both Mental and Material Conditions—How Drawing by the Hand is Representative of Instructive, Reflective, and Emotive Mental Conditions—How the Actions of the Body are Representative of the Same—How Appearances in Nature are Similarly Representative to the Mind of the Spectator—Curvature—Angularity and Straight Lines—Hori-

PAGE

zontality and Effects of Repose, Verticality and Effects of Elevation and Aspiration—Mixed Lines and Effects of Excitation—Illustrations from Landscape Gardening—From Painting and Sculpture—Quotations Confirming these Explanations as Applied to Painting—To Sculpture—Similar Outlines as Used in Architecture—Their Representative Meanings: The Rounded Forms—The Straight Lines and Angles—The Combinations of Both—Recapitulation.

VI.

REGULARITY IN OUTLINES: RADIATION, PARALLELISM, CIRCLES, AND OVALS 88–105

Regularity as Applied to Sizes and Shapes—Framework of Lines on which Art-Products are Constructed—How this Accords with the Requirements of Nature in General, as in Radiation or Central Point—As in Setting—As in Parallelism—Also with the Requirements of Individual Objects in Nature—This Framework Accords with the Requirements both of Mental Conceptions and Material Appearances—Significance of Regularity and Irregularity in Representations of the Mind—Of External Natural Phenomena—Blending of Regularity and Irregularity in the Human Form and Face—As Judged by an Ideal Framework—Its Vertical Lines—Its Horizontal Lines—Facial Regularity does not Involve Sameness—Slight Departures from it not Inconsistent with a Degree of Beauty—Great Departures Allowable for the Sake of Expression or Contrast—Necessity of Considering Differences and Deviations in Regularity Especially as Manifested in the Innate and Assumed Appearances of Men.

VII.

REPRESENTATION THROUGH THE NATURAL SHAPES OF THE HUMAN BODY: GENERAL PRINCIPLES, 106–124

Importance to Art of the Study of the Meaning of the Shapes and Postures of the Human Figure—Sources of Information on this Subject—Relation of the Subject to Physical Facts—Meaning of Roundness or Broadness, Sharpness or Narrowness, and Length—Indicative Respectively of the Vital, the Mental, and the Motive Temperaments—Correlation between these and the Tendencies of Outline already Considered—The Forms Necessitated by the Physiological Conditions Underlying the Three—The Vital and

PAGE

Breadth of Form—The Mental or Interpretive and Sharpness at the Extremities—Connection between the Vital and Mental as Indicated by Length—The Motive or Active and Length of Spine and Muscles—The Same Shapes as Interpreted According to the Observations of Phrenology—Of Physiognomy—The Round Face—The Sharp Face—The Long Face—Of Palmistry—Different Temperaments are Usually Blended in All Men—Mental Tendencies Corresponding to All the Temperaments Exist in Each—How They are Manifested by the Torso and Lower Limbs—By the Hands and Head—In Connection with Activity.

VIII.

REPRESENTATION THROUGH THE POSTURES OF THE HUMAN BODY: GENERAL PRINCIPLES . . 125–140

Three Divisions of the Subject, namely, the Sources, Directions, and Forms of the Movements—The Vital or Physical Sources of Movements Show that the Vital Tendency Leads to Instinctive, Unconscious, Unpremeditated Expression—The Mental Tendency to Reflective, Conscious, and Premeditated Expression—The Motive, Emotive, or Moral Tendency to a Combination of the Two Forms of Expression—The Mental or Interpretive Directions of the Movements Show that Vital Expressions Move away from the Body—Mental Expressions Move toward it—Motive Expressions are in Combinations of the Other Two, as when Alternating or Oblique—Delsarte's Theories—The Active Effects of the Movements are, in the Case of Vital Expression, Free, Graceful, and Round—Of Mental Expression, Constrained, Awkward, Straight—Of Motive Expression in Action Covering Much Space, hence Long—If Very Emotive, Varied and Angular—If Moral, Tense and Rigid—How the Actor's and Orator's Movements Combine Curvature and Straightness, Grace and Strength.

IX.

REPRESENTATION THROUGH PARTICULAR GESTURES OF THE TORSO AND LIMBS. . . . 141–164

Complex Nature of the Subjects to be Treated and the Order in which they will be Considered—Different Parts of the Body as Imparting a Peculiar Phase to Emphasis—Vital *versus* Mental Move-

PAGE

ments of the Body in General Illustrating this: Those Mainly Physical of the Lower Torso—Of the Lower Limbs—Mainly Mental of the Hands and Head with Upper Torso—Mainly Emotive of the Upper Torso with Shoulders and Arms—Mental or Interpretive Movements of the Hands—The Place in the Physical Sphere in which the Hand is Held: Horizontal Extension—Vertical, Downward, and Upward Extension—Meaning of Gestures as Determined by their Physical Relations, as About, Below, or Above the Breast—Indicative not of Actual so much as Conceived Relations—Interpretive Shapes Assumed by the Hand—Physical Suggestions of the Fist—Mental of the Fingers—Emotive of the Palm—Closing Gesture with Averted Palm—Opening Gesture with the Opposite—Motive Expression in the Methods of Managing the Arms—Movement From and Toward the Body and in Both Ways.

X.

REPRESENTATION THROUGH POSITIONS AND MOVEMENTS OF THE HEAD AND FACE . . . 165–191

Correspondences between Gestures of the Head and of the Rest of the Body—Physical Movements of the Head Toward or From Objects or Persons, Directly, Sideward, or Obliquely—Phases of Mentality Suggested by its Different Parts—Illustrations of how these Parts Operate in Connection with the Movements—Complicated Nature of Expression by Movements of the Head, Eyes, and Facial Muscles—Meaning of Movements or Positions of the Head Forward with the Eyes Looking on a Level—With the Eyes Looking Downward—Or Upward—Meaning of Movements or Positions of the Head Backward with the Eyes Looking on a Level—With the Eyes Looking Downward—Or Upward—Meaning of Normal Positions of the Head—Difficulty of Distinguishing between these Different Movements or Positions—Facial Expression Corresponding to Shapes Assumed by the Fingers in Hand Gestures—Rigid Physical Effects like those of the Fist with Mouth, Brows, and Nose—Mental Effects of Concentration, like those of the Finger—Emotive Effects as in the Closing and Opening Gestures, Through Using Muscles of the Mouth—The Eyebrows —The Eyes—The Nostrils—Outline Diagrams of Different Effects —Comic Effects.

XI.

PAGE

REPRESENTATION BY MEANS OF COLOR . . . 192–212

Correspondence between the Effects of Tone in Sounds and of Color in Scenes—Mental Effects of Different Degrees of Light—Instinctive, Reflective, and Emotive Effects—Effects of Pitch and Quality in Color, as in Sound, very Closely Allied—Representative Effects of Different Qualities of Tone—Their Correspondences in Colors—Cold Colors and Normal or Pure Tones as Instinctive—Warm Colors and Orotund Tones as Reflective—Varied Colors as Emotive—Confirmation of these Correspondences from Facts of Experience—From the Use of Color in Painting—Especially the Human Countenance—In Sculpture—In Architecture—Representation of Natural Effects of Distance through Cold and Warm Colors in Painting—In Architecture—Correspondence between the Effects of Mixed Tones and Colors—Representative Influence of Black—With Cold Colors—With Warm Colors—Of White with Cold Colors—With Warm Colors—Further Illustrations—Conclusion.

XII.

THE DEVELOPMENT OF REPRESENTATION IN PAINTING AND SCULPTURE 213–238

Connection between what is to Follow and what has Preceded—How Poetry and Music are Developed from Language and Intonation—Analogous Methods as Exemplified in Painting, Sculpture, and Architecture—Prehistoric Pictorial Art—Representing External Appearances not only, but Mind—Earliest Art of a Historic Period—Picture Writing—Hieroglyphic Writing—Description of—Art as Distinguished from Writing in Egypt—In Greece—Early Representation of Ideas and Later of Natural Appearances only—Symbolism of Early Christian Art and Naturalism of Later Art—Ideas and Nature as Represented at the Renaissance and at Present—Possibility of Two Opposing Tendencies—Justification for each of them—Yet need not Exclude each other—So far as Exclusive each is Detrimental—Practical Application of these Facts to Present Conditions—The Yellow Book—American Illustrated Magazines—Importance of the Subject.

XIII.

PAGE

REPRESENTATION OF MENTAL CONCEPTIONS IN PAINTING AND SCULPTURE 239–253

Our Interest in Objects of Sight is Influenced by their Effects upon our Thoughts and Emotions—Bearing of this Fact upon Representation in Painting and Sculpture—Bearing of the Same upon the Use of the Term, The Humanities—Practical Reasons for Disregarding the Importance of Significance—Attention to Significance not Inconsistent with Equal Attention Given to Form—Nor Attention to Form with Attention to Significance—Theoretical Reasons for Disregarding the Importance of Significance: Lessing's Theory—The Truth of this not Denied in these Essays—The Real Meaning of his Theory—The Principle Underlying it—The Reasons Underlying this Principle—Pictures that are not Able to Interpret themselves—When a Picture is truly Literary—Illustrations—Events, though they should not be Detailed in Pictures, may be Suggested.

XIV.

FORMS OF PAINTING INTERPRETIVE OF THEIR OWN SIGNIFICANCE 254–279

The Possibility of Significance and the Need of Explanation—Quantity and Quality of Significance as Determining Artistic Excellence—Subjects as Determining the Rank of Products—Execution as Determining the Same—Flowers and Fruit—How made Representative of Significance—Landscapes—How made Representative of Significance—How still more of the Human Element may be Introduced—Other Examples—Figures and Faces of Men—Portraits—Characteristic Portraiture—Representative of the Artist's Thought and Emotion—Ideal Portraiture—Genre Paintings—Symbolical, Allegorical, and Mythological Paintings—Historical Paintings—Examples.

XV.

FORMS OF SCULPTURE INTERPRETIVE OF THEIR OWN SIGNIFICANCE: THE FUNCTION OF EXPLANATIONS 280–290

Differences between the Subjects of Painting and Sculpture—Portraiture in Sculpture—Poetic Description of the Dying Gladiator

PAGE

—The Laocoön—Symbolic, Allegoric, Religious, Mythologic, and Historic Sculpture—Verbal Explanations as an Aid to Artistic Effect—Have the Same Relation to Painting and Sculpture as to Music—The Interest and Attractiveness of Things Seen is Increased by our Knowledge with Reference to them—The Same Principle Applies to Things Depicted in Art.

XVI.

REPRESENTATION OF MATERIAL APPEARANCES IN PAINTING AND SCULPTURE 291–310

Form Comes to be Developed for its own Sake—To Appreciate Art, we should Know the Technical Aims of the Artist—Books on the Subject—Elements of Correct Technique—Lineal Representation of Light and Shade—Of Shape and Texture—Of Distance and Perspective—"Classic" and "Romantic" Lines—Distinctness and Indistinctness of Line—Laws of Perspective—Lineal Representation of Life and Movement—Reason for Apparent Lack of Accuracy—Same Principles Apply to Sculpture—Elements of Correct Coloring—Ignorance of Early Colorists—Value—Origin of the Term—Color—Representation of Light and Shade—Of Shape and Texture—Of Distance or Aërial Perspective—Of Life and Movement—Conclusion.

XVII.

THE DEVELOPMENT OF REPRESENTATION IN ARCHITECTURE 311–321

Modes of Expression in Architecture and Music as Contrasted with Painting, Sculpture, and Poetry—The Germs of Music and Architecture Antedate those of the Other Arts, but are Artistically Developed Later—Music Develops through Poetry, and Architecture is Hut-Building Made Picturesque and Statuesque—Early Attempts to Make Useful Buildings Ornamental—Examples—Influences of the Play-Impulse upon All Forms of Construction—Illustration of its Effects upon a House—These Effects Represent both Mental and Material Conditions—Facts Evincing this—Such Effects as Enhancing the Interest.

XVIII.

PAGE

ARCHITECTURAL REPRESENTATION OF MENTAL CONCEPTIONS: FOUNDATIONS AND WALLS . 322–352

Representation of the Constructive Idea in the Foundation—The Side Walls—Pillars, Buttresses, Pilasters, String-Courses—Effects of Satisfaction and Repose *versus* those of Insecurity in Support Afforded by Pillars—Arches—Brackets—Important for the Apparent Support to be the Real Support—Heavy Cupolas and Ventilators—Unrepresentative Pediments—The Purpose of a Building as Determining its General Plan—As Determining its Interior Arrangements—As Determining its Exterior Appearance—Representative of the Interior Plan through the Exterior—Appearances of Five Cottages Contrasted—The Same Principle Applied to Other Buildings, Street Fronts, Palaces—Colleges—Porches.

XIX.

ARCHITECTURAL REPRESENTATION OF MENTAL CONCEPTIONS—ROOFS 353–371

Domes—False Domes—Useless Cupolas, Pinnacles, Towers, Spires—The Same Used as Memorials—Even these should be Artistic and so Representative—This Principle as Applied to Spires and Towers—The Roof Proper—Rounded Roofs—Roofs as too Large and too Small or Invisible—Gutters and Cornices, Plain and Castellated—Balustrades as Representing Flat Roofs—Visible Roofs in City Streets—Paris Streets and the Court of Honor at the Columbian Exhibition—Streets in New York—Objections to High Buildings—Legislative Methods of Preventing them—Æsthetic Regulations about Sky-line, Color, and Style—The Sky-line and Mansard Roof.

XX.

ARCHITECTURAL REPRESENTATION OF MATERIAL SURROUNDINGS 372–396

Object of the Present Chapter—Architecture Involves more than Natural Arrangements for Shelter—But is Developed from these—Rendered more Representative—Primitive Huts as Developed into the Temples on the Acropolis—Primitive Tents as Developed

PAGE

into the Oriental Temples—Primitive Rounded and Pointed Arches, Domes, and Spires,—This Imitation sometimes Conscious, sometimes Unconscious—Development of Styles Based on Straight Lines, Curves, and Angles—Criticism on the Views of Helmholtz —The Principles of Correspondence as Fulfilled in Architectural Forms—Suggestive and Imitative Representation as Fulfilled in it and in other Arts—Architectural Examples.

XXI.

ARCHITECTURAL REPRESENTATION OF MATERIAL SURROUNDINGS CONTINUED 397–408

The Order of Representative Development in Architecture—Styles Imitating Appearances in Nature—Testimony of Facts—Applied to Interiors and Exteriors—Developments of the Imitative in the other Arts—Possibilities of its Development in Architecture—New Uses of Metals—The Development of the Tendency might not Improve the Art—Would Necessitate the Exercise of Genius—What are Valid Arguments against such Developments—Sincerity in the Use of Material, Natural Woods, etc.—Use of Material Natural to a Locality—Conclusion.

INDEX 409

ILLUSTRATIONS.

PAGE

1. FARNESE HERCULES BY GLYCON THE ATHENIAN . . . 20
   From Mitchell's "History of Sculpture." Mentioned on pages 21, 24, 26, 281.
2. FLYING MERCURY BY GIOVANNI DA BOLOGNA . . . 21
   From Viardot's "Wonders of Sculpture." Mentioned on pages 21, 25, 26, 62, 73, 135, 152.
3. MELROSE ABBEY 24
   From Fergusson's "History of Architecture." Mentioned on pages 25, 26, 32, 34, 203, 322, 380, 390.
4. INTERIOR OF A CHURCH NEAR KOSTROMA, RUSSIA . . . 25
   From the same. Mentioned on pages 25, 26, 32, 34.
5. PIANKHI RECEIVING THE SUBMISSION of NAMRUT AND OTHERS, 27
   From Rawlinson's "Ancient Egypt." Mentioned on pages 27, 50, 222.
6. HERACLES, TRITON, AND NEREIDS, FROM DORIC TEMPLE AT ASSOS 27
   From C. E. Clement's "Outline History of Sculpture." Mentioned on pages 27, 222.
7. HENRY II. RECEIVING FROM GOD THE CROWN, ETC. . . 29
   From Baring-Gould's "Germany." Mentioned on page 27.
8. POLLICE VERSO, BY GÉRÔME 31
   From a photograph. Mentioned on pages 28, 34, 91, 274, 287, 295.
9. A SCENE IN THE WOODS 33
   From Cassell's "Sunlight and Shade." Mentioned on pages 32, 73, 399.
10. EGYPTIAN LOTUS-LEAF CAPITAL FROM EDFU 34
    From Lubke's "History of Art." Mentioned on pages 32, 394, 398.
11. ANCIENT CORINTHIAN CAPITAL 34
    From Fergusson's "History of Architecture." Mentioned on pages 32, 380, 398.
12. CATHEDRAL OF ST. ISAAC'S, ST. PETERSBURG 35
    From Cassell's "All the Russias." Mentioned on pages 34, 36, 38, 42, 52, 82, 352, 353, 356, 380.
13. HOUSE OF PARLIAMENT, ENGLAND 36
    From a photograph. Mentioned on pages 34, 38, 42, 52, 322, 358, 380.
14. TEMPLE OF THESEUS, ATHENS 36
    From Lubke's "History of Art." Mentioned on pages 34, 35, 38, 42, 52, 84, 86, 322, 323, 380, 386, 387, 389.
15. ST. MARK'S, VENICE 37
    From a photograph. Mentioned on pages 36, 38, 42, 52, 78, 82, 86, 380.

PAGE

16. LIGHT AND SHADE, BY WALTER CRANE 41
From Cassell's *Magazine of Art*. Mentioned on pages 18, 41, 44, 46, 294, 307.

17. LINES EXPRESSIVE OF STORM, BY WALTER CRANE . . . 43
From the same. Mentioned on pages 18, 44, 66, 72, 259.

18. LINES EXPRESSIVE OF REPOSE, BY WALTER CRANE . . . 45
From the same. Mentioned on pages 18, 44, 70, 73, 90, 92, 95, 259.

19. PALLAS OF VELLETRI 47
From Viardot's "Wonders of Sculpture." Mentioned on pages 49, 76, 281.

20. APOLLO SAUROCTONOS, BY PRAXITELES 48
From Cassell's "Gods of Olympus." Mentioned on pages 49, 61, 76, 136, 223, 281.

21. THE LAOCOÖN GROUP 49
From C. E. Clement's "Outline History of Sculpture." Mentioned on pages 49, 77, 174, 223, 281, 284, 285.

22. GROUP FROM THE MAUSOLEUM OF MARIA CHRISTINA, BY CANOVA, AT VIENNA 50
From Viardot's "Wonders of Sculpture." Mentioned on pages 50, 73, 263, 286.

23. THE SOLDIER'S RETURN. RELIEF ON NATIONAL MONUMENT NEAR BINGEN ON THE RHINE 51
From a photograph. Mentioned on pages 50, 286, 302.

24. OLD SOUTH CHURCH, BOSTON, MASS. 52
From Cassell's "The World and its Cities and People." Mentioned on pages 35, 54, 84, 331, 380.

25. TRINITY CHURCH, BOSTON, MASS. 53
From the same. Mentioned on pages 35, 54, 84, 323, 334, 380.

26. FIGURE FROM THE NAUSICA, BY E. J. POYNTER . . . 60
From Cassell's *Magazine of Art*. Mentioned on pages 61, 72, 129, 130, 133.

27. PEDANT'S PROPOSITION OF MARRIAGE, FROM ETCHING BY DANIEL CHODOWIECK 61
From the same. Mentioned on pages 61, 138, 147, 160, 161, 169, 175.

28. THE APOLLO BELVEDERE 62
From Lubke's "History of Art." Mentioned on pages 62, 138, 147, 149, 151, 224, 281.

29. AUTHOR AND CRITICS, BY H. STACY MARKS, R.A. . . . 63
From Cassell's *Magazine of Art*. Mentioned on pages 62, 151, 152 156, 172, 173, 177.

30. LINES ILLUSTRATIVE OF ACTION, BY WALTER CRANE . . 64
From the same. Mentioned on pages 62, 72.

31. AN ATTACK 65
From a drawing by C. C. Rosenkranz. Mentioned on pages 62, 145, 167, 171.

32. TISSINGTON SPIRES, ENGLAND 67
From Cassell's "Our Own Country." Mentioned on pages 65, 66, 70, 72, 259, 399.

33. REPOSE IN LANDSCAPE AND FIGURE, BY WALTER CRANE . . 69
From Cassell's *Magazine of Art*. Mentioned on pages 70, 73, 90, 92, 259.

PAGE

34. THE AURORA, BY GUIDO 71
From the same. Mentioned on pages 61, 72, 136, 265, 272.

35. THE ADORATION OF THE MAGI, BY PAUL VERONESI . . . 72
From Lubke's "History of Art." Mentioned on pages 73, 174, 263, 276.

36. THE RAPE OF THE SABINES, BY N. POUSSIN 75
From a drawing from Scribner's "Cyclopedia of Painters and Painting." Mentioned on pages 46, 75, 87.

37. ATHENA OF THE CAPITOL 76
From C. E. Clement's "Outline History of Sculpture." Mentioned on pages 76, 224, 281.

38. VENUS DE' MEDICI 77
From Mitchell's "History of Sculpture." Mentioned on pages 76, 138, 142, 223, 225, 281.

39. THE DEATH OF ANANIAS—CARTOON BY RAPHAEL . . . 79
From a photograph. Mentioned on pages 61, 62, 77, 137, 140, 145, 147, 156, 158, 161, 167, 170, 177, 178, 226, 287.

40. OLD PICTURES OF ST. SOPHIA, CONSTANTINOPLE . . . 80
From Lane-Poole's "Turkey." Mentioned on pages 78, 82, 86, 380.

41. COLOGNE CATHEDRAL 81
From a photograph. Mentioned on pages 35, 52, 78, 82, 84, 86, 323, 380, 405.

42. THE RUSSIAN CHURCH, PARIS 83
From Fergusson's "History of Modern Architecture." Mentioned on pages 82, 84, 86, 323.

43. INTERIOR OF BEVERLEY MINSTER, ENGLAND 84
From a photograph. Mentioned on pages 32, 82, 84, 380, 388, 399, 405.

44. AVENUE OF PALMS AT RIO-DE-JANEIRO 85
From Cassell's "Countries of the World." Mentioned on pages, 32, 73, 84, 399, 403.

45. JAPANESE COMPOSITIONS 93
From Kotsugaro Yenouge's "Fine Art Pictures." Mentioned on pages 90, 93.

46. HUMAN FIGURE PROPORTIONATELY DIVIDED BY LINES . . 96
Drawn over an illustration from Putnam's "Art Hand-Book of Figure Drawing." Mentioned on pages 90, 97, 98.

47. FRONT FACE PROPORTIONATELY DIVIDED BY LINES . . . 97
From the same. Mentioned on pages 90, 97, 98, 101.

48. SIDE FACE PROPORTIONATELY DIVIDED BY LINES . . . 97
From the same. Mentioned on pages 90, 97, 98.

49. EYE AND EAR PROPORTIONATELY DIVIDED BY LINES . . 98
From the same. Mentioned on pages 90, 97.

50. MEPHISTOPHELES 99
From Well's "New Physiognomy." Mentioned on pages 100, 118, 170, 176, 178.

51. FACE EXPRESSIVE OF CONTEMPT AND ANGER 99
From the same. Mentioned on pages 100, 118, 181, 182, 183, 184, 185, 189.

52. LAUGHING AND SMILING FACE 100
From Cassell's *Magazine of Art*. Mentioned on pages 100, 183, 184.

PAGE

53. FACE PROPORTIONATELY DIVIDED BY LINES 101
Drawn over a photograph from *Dramatic Mirror*. Mentioned on page 101.

54. FACE PROPORTIONATELY DIVIDED BY LINES 102
From the same. Mentioned on page 101.

55. FACE PROPORTIONATELY DIVIDED BY LINES 102
From the same. Mentioned on page 101.

56. FACE PROPORTIONATELY DIVIDED BY LINES 103
From the same. Mentioned on page 101.

57. FACE PROPORTIONATELY DIVIDED BY LINES 103
From the same. Mentioned on page 101.

58. ST. MICHAEL OVERCOMING SATAN, BY RAPHAEL 104
From Cassell's *Magazine of Art*. Mentioned on pages 62, 103, 145, 168.

59. GOLDSMITH 109
From Well's "New Physiognomy." Mentioned on pages 109, 113, 115, 117, 119, 124, 187.

60. LONGFELLOW 109
From the same. Mentioned on pages 109, 113, 115, 117, 119, 124.

61. PHRENOLOGICALLY DIVIDED HEAD 115
From the same. Mentioned on pages 115, 124, 167.

62. YANKEE SULLIVAN 115
From the same. Mentioned on pages 115, 119, 124.

63. NAPOLEON BONAPARTE 116
From the same. Mentioned on pages 115, 118, 119, 120, 124, 169, 177, 179.

64. ALBERT BARNES 117
From the same. Mentioned on pages 115, 117, 118, 124, 182.

65. BROAD HAND AND ROUND FINGERS 120
From a photograph of a drawing. Mentioned on pages 121, 123.

66. SHARP HAND AND ANGULAR FINGERS 121
From the same. Mentioned on pages 121, 123.

67. LONG HAND AND SPATULATED FINGERS 122
From the same. Mentioned on pages 121, 123.

68. DROWNING MAN 128
From a drawing by C. C. Rosenkranz. Mentioned on page 129.

69. REFLECTION 129
From a drawing by Maud Stumm. Mentioned on pages 129, 142, 156, 162.

70. STERN'S MARIA, PAINTED BY WRIGHT OF DERBY 131
From Cassell's *Magazine of Art*. Mentioned on pages 129, 142, 156, 168.

71. UPWARD CLOSING GESTURE 132
From a drawing by C. C. Rosenkranz. Mentioned on pages 145, 152, 156, 161.

72. SIDE CLOSING GESTURE 132
From the same. Mentioned on pages 140, 156, 158.

73. OBLIQUE FORWARD MOVEMENT 132
From the same. Mentioned on pages 62, 130, 137, 145, 148, 167, 172, 175.

PAGE

74. OBLIQUE BACKWARD MOVEMENT 132
From the same. Mentioned on pages 62, 130, 145, 148, 158, 167.

75. DOWNWARD CLOSING GESTURE 134
From the same. Mentioned on pages 134, 136, 140, 156, 158.

76. CLOSING FINGER GESTURE SIDEWARD 134
From the same. Mentioned on pages 134, 136, 156, 158, 159.

77. ANGULAR ARGUMENTATIVE MOVEMENTS 135
From the same. Mentioned on pages 62, 134.

78. DANCING MOVEMENTS 136
From the same. Mentioned on pages 130, 135, 142.

79. A NEW GUINEA CHIEF 137
From Cassell's "Picturesque Australia." Mentioned on pages 136, 138.

80. THE WOMAN TAKEN IN ADULTERY, BY N. POUSSIN . . . 139
From Cassell's *Magazine of Art*. Mentioned on pages 129, 140, 155, 158, 161, 168, 174, 186, 276, 287.

81. DISCOMFORT IN THE ABDOMEN 142
From a drawing by C. C. Rosenkranz. Mentioned on pages 142, 162.

82. THE RESURRECTION, BY T. NELSON MACLEAN 143
From Cassell's *Magazine of Art*. Mentioned on pages 140, 142, 147, 151, 152, 160, 161, 162, 167, 174, 286.

83. THE FAUN OF PRAXITELES 144
From Lubke's "History of Art." Mentioned on pages 61, 144, 147, 282.

84. BODY PROLONGED FOR MORAL EFFECT 145
From a drawing by C. C. Rosenkranz. Mentioned on pages 62, 138, 145, 152.

85. EXPRESSION WITH THE FOOT 146
From the same. Mentioned on pages 130, 145.

86. EXPRESSION WITH THE FOOT AND LEG 146
From the some. Mentioned on page 145.

87. EXPRESSION WITH THE FOOT AND KNEE 146
From the same. Mentioned on page 146.

88. EXPRESSION WITH THE HIPS 147
From the same. Mentioned on pages 138, 147.

89. WALKING WITH BREAST AND BROW ADVANCED 148
From Well's "New Physiognomy." Mentioned on pages 145, 147, 148, 169, 172.

90. WALKING WITH FACE IN ADVANCE 148
From the same. Mentioned on pages 148, 167, 171.

91. FAITH, HOPE, AND LOVE 149
From the same. Mentioned on pages 147, 148, 151, 162, 169.

92. JUDAS, PETER, AND JOHN, FROM THE LAST SUPPER OF LEONARDO, 150
From Lubke's "History of Art." Mentioned on pages 147, 148, 158. 167, 169, 173, 287.

93. WALKING UPRIGHT 151
From Well's "New Physiognomy." Mentioned on pages 149, 169.

PAGE

94. ADDING INSULT TO INJURY, BY GAETANO CHIERICI . . . 152
From Cassell's *Magazine of Art*. Mentioned on pages 151, 156, 263.

95. CAIN, BY GIOVANNI DUPRÉ 157
From the same. Mentioned on pages 156, 158, 281.

96. DOWNWARD OPENING GESTURE 159
From a drawing by C. C. Rosenkranz. Mentioned on pages 156, 160.

97. SIDEWARD DESCRIPTIVE OPENING GESTURE 159
From the same. Mentioned on pages 138, 151, 156, 160.

98. UPWARD OPENING GESTURE 160
From the same. Mentioned on pages 151, 161.

99. BOY SURPRISED 163
From a drawing by Maud Stumm. Mentioned on pages 130, 163, 171.

100. CREDULITY 167
From Well's "New Physiognomy." Mentioned on pages 167, 168, 171, 174.

101. UNYIELDING CONTEMPLATION 169
From the same. Mentioned on pages 167, 169, 175.

102. AMIABLE SUSPICION 171
From the same. Mentioned on pages 171, 186.

103. UNAMIABLE SUSPICION 171
From the same. Mentioned on pages 171, 177.

104. THOUGHTFUL ATTENTION 172
From the same. Mentioned on pages 119, 172, 187.

105. CONFIDENCE 173
From the same. Mentioned on page 172.

106. GALILEO 174
From the same. Mentioned on page 173.

107. AMBITION 174
From the same. Mentioned on pages 173, 186.

108. HOPELESSNESS 174
From the same. Mentioned on pages 173, 186.

109. APPREHENSIVE ATTENTION 175
From the same. Mentioned on page 173.

110. RELIGIOUS RAPTURE 175
From the same. Mentioned on pages 174, 175, 179.

111. UNCONFIDING ATTENTION 176
From the same. Mentioned on pages 175, 176.

112. UNCONVINCED ATTENTION 176
From the same. Mentioned on pages 167, 169, 175, 176, 178, 185.

113. DESPAIR 176
From the same. Mentioned on pages 175, 185.

114. UNCONFIDING PRIDE 177
From the same. Mentioned on pages 167, 176.

115. MALICE 177
From the same. Mentioned on pages 177, 185.

PAGE

116. SATISFIED CONFIDENCE 177
From the same. Mentioned on page 177.

117. IMPUDENCE 177
From the same. Mentioned on pages 167, 178.

118. FAITH 178
From the same. Mentioned on pages, 179, 187.

119. APPREHENSIVE ASTONISHMENT 179
From the same. Mentioned on pages 174, 179, 185.

120. TRIUMPH 179
From the same. Mentioned on page 179.

121. RAGE AND FEAR 181
From the same. Mentioned on pages 179, 181, 184, 186, 189.

122. CONTEMPTUOUS RAGE 181
From the same. Mentioned on pages 175, 176, 178, 181, 182, 183, 186, 189.

123. REFLECTION 182
From Duval's "Artistic Anatomy." Mentioned on pages 182, 184, 185, 186, 188.

124. CONTEMPT AND DISCONTENT 183
From the same. Mentioned on pages 121, 183, 185, 188.

125. CURIOSITY 184
From Well's "New Physiognomy." Mentioned on pages 183, 184, 187.

126. APPREHENSIVE GRIEF 184
From the same. Mentioned on pages 173, 183, 184.

127. LAUGHTER AND GAYETY 185
From Duval's "Artistic Anatomy." Mentioned on pages 121, 183, 184, 185, 187.

128. DISAPPOINTED DESIRE 186
From Well's "New Physiognomy." Mentioned on pages 174, 175, 179, 183, 184.

129. TERROR 186
From the same. Mentioned on pages 173, 183, 184, 185, 188.

130. ATTENTION AND ASTONISHMENT 187
From Duval's "Artistic Anatomy." Mentioned on pages 186, 187.

131. SORROW 187
From the same. Mentioned on pages 185, 186, 188.

132. FEAR 188
From Well's "New Physiognomy." Mentioned on pages 178, 185, 186, 188.

133. ASTONISHED HORROR 188
From the same. Mentioned on pages 185, 186, 188.

134 to 136. DE SUPERVILLE'S DIAGRAMS OF CALMNESS, GAYETY, AND SADNESS 189
From Duval's "Artistic Anatomy." Mentioned on page 189.

137 to 139. DUVAL'S DIAGRAMS OF REFLECTION, LAUGHTER, AND SORROW 190
From the same. Mentioned on page 189.

PAGE

140 and 141. DUVAL'S DIAGRAMS OF ATTENTION, ASTONISHMENT, AND CONTEMPT 190
From the same. Mentioned on page 189.

142 and 143. DUVAL'S DIAGRAMS OF GRIEF AND FEAR . . . 190
From the same. Mentioned on page 189.

144. WELLS CATHEDRAL, ENGLAND 205
From Cassell's "Our Own Country." Mentioned on pages 203, 380, 405.

145. FIGURE CARVED IN STONE AGE 215
From Viardot's "Wonders of Sculpture." Mentioned on page 216.

146. EGYPTIAN PICTURE FROM THE "BOOK OF THE DEAD" . . 219
From Lubke's "History of Art." Mentioned on pages 219, 221, 222.

147. ANCIENT EGYPTIAN FACE IN BRITISH MUSEUM . . . 221
From Mitchell's "History of Sculpture." Mentioned on pages 203, 222.

148. FIGURES FROM FRIEZE OF THE PARTHENON 223
From C. E. Clement's "Outline History of Sculpture." Mentioned on pages 223, 225, 281, 282, 396.

149. VENUS LEAVING THE BATH : CAPITOL AT ROME . . . 224
From Viardot's "Wonders of Sculpture." Mentioned on pages 76, 223, 225, 281, 282.

150. ORNAMENTAL ARCADE FROM THE CHAPEL AT HOLYROOD, SCOTLAND 227
From Fergusson's "History of Architecture." Mentioned on page 226.

151. THE GIRLHOOD OF THE VIRGIN MARY, BY ROSSETTI . . 229
From a photograph. Mentioned on pages 230, 252, 295.

152. A STORM, BY J. F. MILLET 231
From a photograph. Mentioned on pages 230, 253, 259, 260, 295, 300.

153. COVER OF THE CATALOGUE OF NEW YORK WATER COLOR EXHIBITION 233
From the *Critic*. Mentioned on pages 232, 234.

154. EASTER ADVERTISEMENT OF GORHAM MANUFACTURING CO. . 235
From Gorham Manufacturing Co. Mentioned on page 236.

155. RELIEF FROM THE BAPTISTRY AT FLORENCE 247
From Lubke's "History of Art." Mentioned on pages 248, 286, 302.

156. THE SCHOOL OF ATHENS, BY RAPHAEL 249
From a photograph from an engraving. Mentioned on pages 201, 248, 272, 287.

157. JEWISH CEMETERY, BY JACOB RUYSDAEL 261
From Lubke's "History of Art." Mentioned on page 260.

158. DIGNITY AND IMPUDENCE, BY LANDSEER 263
From a photograph. Mentioned on pages 262, 263.

159. STATUE OF NATHAN HALE, BY MACMONNIES 267
From a photograph. Mentioned on pages 266, 281.

160. CARD PLAYERS, BY CARAVAGGIO 271
From Lubke's "History of Art." Mentioned on pages 169, 172, 270.

PAGE

161. A SUMMER EVENING, BY VAN BEERS 273
From a photograph, with permission of C. T. Yerkes. Mentioned on pages 270, 271.

162. THE DREAM, BY DETAILLE 275
From Cassell's *Magazine of Art*. Mentioned on page 272.

163. THE DESCENT FROM THE CROSS, BY RUBENS 277
From a photograph. Mentioned on pages 202, 276, 287.

164. THE SACRIFICE AT LYSTRA, BY RAPHAEL 279
From Lubke's "History of Art." Mentioned on pages 158, 276, 287.

165. TITUS—STATUE FROM THE LOUVRE 282
From Müller's "Denkmäler der Alten Kunst." Mentioned page 281.

166. THE DYING GALATIAN (OR GLADIATOR) 283
From Well's "New Physiognomy. Mentioned on pages 282, 283.

167. TREATMENT OF DESIGN IN RELIEF, BY W. CRANE . . . 293
From Cassell's *Magazine of Art*. Mentioned on pages 44, 46, 294, 307.

168. EFFECTS OF DISTANCE ON MAGNITUDE, LIGHT, CONTRAST, AND DETAIL 297
From J. W. Stimson's "Principles and Methods in Art Education." Mentioned on pages 28, 91, 206, 294, 296, 298, 304, 306, 308.

169. LEAVING FOR WORK, BY J. F. MILLET 299
From Cassell's *Magazine of Art*. Mentioned on pages 295, 300.

170. TOMB OF GIULIANO DE' MEDICI, WITH FIGURES OF NIGHT AND DAY, BY ANGELO 301
From Lubke's "History of Art." Mentioned on pages 50, 301, 302.

171. ROCK TOMB AT MYRA IN LYCIA 315
From the same. Mentioned on pages 315, 316, 375, 376, 387, 397, 403, 407.

172. CAVE OF ELEPHANTA, INDIA 317
From a water-color. Mentioned on pages 315, 316, 375, 376, 389, 407.

173. DEVELOPMENT OF ARCHITECTURAL FEATURES 319
From Fergusson's "History of Architecture." Mentioned on pages 52, 318, 319, 323, 343, 344, 360, 380.

174. HOUSES AT MORLAIX, FRANCE 324
From Cassell's "A Ramble Around France." Mentioned on page 323.

175. THE STARSCHINA'S HOUSE, EASTERN RUSSIA 325
From Cassell's "All the Russias." Mentioned on pages 323, 358, 403, 408.

176. VALMARINA PALACE, VICENZA, ITALY 326
From Fergusson's "History of Modern Architecture." Mentioned on pages 324, 348, 358, 380.

177. EXETER HALL 327
From a photograph of a drawing by H. A. Harris. Mentioned on pages 326, 330, 336.

178. AN AMERICAN CHURCH 328
From Fergusson's "History of Modern Architecture." Mentioned on pages 327, 330, 355.

179. MAIN BUILDING, UNIVERSITY OF PENNSYLVANIA 329
From Cassell's "The World, Its Cities and Peoples." Mentioned on pages 327, 331, 355, 371.

PAGE

180. HIGH SCHOOL TOWER 330
From a photograph of a drawing. Mentioned on pages 327, 330.

181. SUPPORT OF A CHURCH ROOF 331
From a photograph of a drawing. Mentioned on pages 329, 330.

182. DECORATION OF A CHURCH CEILING 332
From Fergusson's "History of Architecture." Mentioned on page 330.

183. NORMAL SCHOOL, CHRISTCHERD, NEW ZEALAND . . . 333
From Cassell's "Picturesque Australia." Mentioned on pages 331, 332, 355, 358, 359.

184. ELEVATION OF PROPOSED ALBANY CATHEDRAL—RICHARDSON, 335
From the *New England Magazine*. Mentioned on pages 334, 378, 380.

185. COTTAGE AT CHIDDINGFOLD, ENGLAND 338
From R. Nevill's "Old Cottage and Domestic Architecture." Mentioned on pages 54, 337, 339, 358.

186. COTTAGE AT SANDHILLS, ENGLAND 339
From the same. Mentioned on page 338.

187. COTTAGE AT TUESLEY, ENGLAND 340
From the same. Mentioned on pages 323, 339, 358.

188. INN AT CHIDDINGFOLD, ENGLAND 341
From the same. Mentioned on pages 340, 358, 359.

189. UNSTED FARM, ENGLAND 342
From the same. Mentioned on pages 323, 341, 358.

190. MARIEN PLATZ, MUNICH 343
From Cassell's "Chats About Germany." Mentioned on pages 54, 344, 360, 380.

191. UNTER DEN LINDEN, BERLIN 344
From the same. Mentioned on pages 344, 360, 364.

192. BOULEVARD, ST. MICHAEL, PARIS 345
From Cassell's "Paris." Mentioned on pages 84, 344, 363, 364, 370, 380.

193. STREET AND BELFRY AT GHENT 346
From Cassell's "The World, Its Cities and Peoples." Mentioned on pages 344, 362, 380.

194. STROZZI PALACE, FLORENCE 347
From Lubke's "History of Art." Mentioned on pages 346, 347, 359, 360.

195. CHENONCEAU CHATEAU, FRANCE 348
From the same. Mentioned on pages 346, 347, 352, 378.

196. PAVILION OF RICHELIEU, LOUVRE, PARIS 349
From Cassell's "The World, its Cities and Peoples." Mentioned on pages 52, 348, 358, 359, 380.

197. QUEEN'S COLLEGE, GALWAY 350
From Cassell's "Our Own Country." Mentioned on pages 84, 349, 355, 359, 360, 380.

198. UNIVERSITY AT SYDNEY, AUSTRALIA 351
From Cassell's "Picturesque Australia." Mentioned on pages 84, 324, 349, 352, 355, 359, 360, 362, 369, 380.

PAGE

199. SCHILLER PLATZ, BERLIN 354
From Cassell's "Chats About Germany." Mentioned on pages 354, 357, 380.

200. MEDIÆVAL CASTLE 360
From Cassell's "Land of Temples." Mentioned on page 360.

201. MADISON AVENUE, NEW YORK 361
From *Munsey's Magazine.* Mentioned on pages 334, 360, 364, 380.

202. TRINITY SCHOOL, NEW YORK 363
From a photograph. Mentioned on pages 323, 362, 369.

203. COURT OF HONOR, COLUMBIAN EXHIBITION, CHICAGO . . 365
From *Cosmopolitan Magazine.* Mentioned on pages 84, 203, 363, 364, 380.

204. WALKER MUSEUM, CHICAGO UNIVERSITY 367
From the same. Mentioned on pages 369, 380.

205. RYERSON PHYSICAL LABORATORY, CHICAGO UNIVERSITY . 368
From the same. Mentioned on pages 369, 380.

206. PUBLIC SCHOOLS, OXFORD, ENGLAND 369
From a photograph of an engraving. Mentioned on pages 360, 369, 380.

207. BEDFORD BUILDING, BOSTON 370
From the *New England Magazine.* Mentioned on pages 323, 371, 380.

208. CHIEFS' HOUSES, KEREPUNA, AUSTRALIA 374
From Cassell's "Picturesque Australia." Mentioned on pages 80, 375, 376, 378, 386, 397.

209. RESTORATION OF THE WEST END OF THE ACROPOLIS, ATHENS, 375
From White's "Plutarch." Mentioned on pages 376, 380, 386, 387, 397, 407.

210. TENT OF EASTERN ASIA 376
From Cassell's "Across Thibet." Mentioned on pages 376, 386.

211. WINTER PALACE, PEKIN 377
From Fergusson's "History of Indian and Eastern Architecture." Mentioned on pages 358, 376, 380, 386.

212. HOTTENTOT KRALL 379
From Cassell's "The World, its Cities and its Peoples." Mentioned on pages 80, 377, 384.

213. KAFFIR STATION, AFRICA 381
From Cassell's "Races of Mankind." Mentioned on pages 377, 378, 384.

214. NEGRO HUTS, KOUROUNDING KOTO, SOUDAN 383
From Cassell's "The World, its Cities and its Peoples." Mentioned on pages 80, 378, 384.

215. GREEK DORIC TEMPLE OF ÆGINA 387
From Fergusson's "History of Architecture." Mentioned on pages 380, 389, 396.

216. GREEK IONIC ORDER 388
From Cassell's "Manual of Greek Archæology." Mentioned on pages 380, 389.

217. ANTEFIX OF MARBLE FROM TEMPLE OF ÆGINA 389
From the same. Mentioned on pages 389, 398.

218. DOORWAY OF TROITZKA MONASTERY, RUSSIA 390
From Fergusson's "History of Architecture." Mentioned on pages 380, 388, 390.

PAGE

219. INTERIOR OF SAN VITALE, RAVENNA 391
From the same. Mentioned on pages 380, 390.

220. CHOIR OF ELY CATHEDRAL, ENGLAND 392
From the same. Mentioned on pages 78, 380, 390, 405.

221. PORTAL AT PERSEPOLIS, PERSIA 393
From photpgraph of an Engraving. Mentioned on pages 393, 398.

222. ACROTERIUM AND GUTTER, TEMPLE OF ÆGINA . . . 393
From Cassell's "Manual of Greek Archæology." Mentioned on pages 389, 393, 398.

223. EGYPTIAN HIERACO SPHINX 393
From C. E. Clement's "Outline History of Sculpture." Mentioned on pages 393, 398.

224. GARGOYLE FROM COLOGNE CATHEDRAL 394
Photograph from an engraving. Mentioned on pages 393, 394, 398.

225. CAPITAL FROM A TOMB AT PERSEPOLIS, PERSIA . . . 394
Photograph from an engraving. Mentioned on pages 394, 398.

226. GREEK CORINTHIAN CAPITAL 394
From Cassell's "Manual of Greek Archæology." Mentioned on pages 380, 387, 396.

227. TEMPLE AT IPSAMBOOL, EGYPT 394
Photograph from an engraving. Mentioned on pages 396, 398.

228. CAPITAL AT DENDERAH, EGYPT 395
From Lubke's "History of Art." Mentioned on pages 396, 398.

229. GIANTS FROM TEMPLE OF AGRIGENTUM 395
From Mitchell's "History of Sculpture." Mentioned on pages 396, 398.

230. CAPITAL FROM CATHEDRAL AT RHEIMS 395
From Fergusson's "History of Architecture." Mentioned on pages 390, 396, 398.

231. CORBEL FROM CATHEDRAL AT RHEIMS 396
From the same. Mentioned on pages 38, 390, 396, 398.

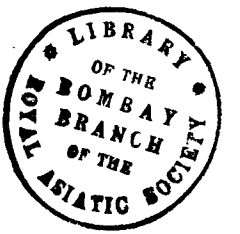
232. TEMPLE AT BUDDHA GAYA, INDIA 400
From Fergusson's "Indian and Eastern Architecture." Mentioned on pages 380, 399.

233. TEMPLE AT MUKTESWARA, INDIA 401
From the same. Mentioned on pages 380, 399.

234. AISLE OF HENRY VII.'S CHAPEL, WESTMINSTER ABBEY, ENGLAND 404
From Fergusson's "History of Architecture." Mentioned on pages 380, 403, 405.

The author wishes to express his sense of obligation to the various artists, authors, and publishers, to whom he is indebted for kind permission to insert in this book such illustrations as are owned by them, or protected by their copyrights, especially to Messrs. Dodd, Mead & Co., Fowler & Wells, Charles Scribners' Sons, and F. A. Stokes & Co. of New York, Cassell & Co. and John Murray of London, and Ebner & Seubert of Stuttgart.

PAINTING, SCULPTURE, AND ARCHITECTURE AS REPRESENTATIVE ARTS



PAINTING, SCULPTURE, AND ARCHITECTURE AS REPRESENTATIVE ARTS.

CHAPTER I.

CORRESPONDENCES BETWEEN THE PRINCIPLES OF REPRESENTATION IN THE ARTS OF SOUND AND OF SIGHT.

The Higher Arts as All Representative—Of Mental Processes—Of Material Phenomena—The Principle of Correspondence by Way of Association and Comparison, as Applied to Language—Representation by Instinctive Exclamations—By Reflective Imitative Sounds—Poetry and Music as Developed from these Two Methods—Correspondences by Way of Association and Comparison in the Arts of Sight—Differences in the Ways in which the Two are Recognized and Used—The Instinctive and Reflective Tendencies as Respectively Manifested in Painting, Sculpture, and Architecture—The Emotive as a Combination of Both Tendencies—Illustrated by Facts.

IN the volume of this series of essays entitled "Art in Theory," an endeavor was made to show that art in general is nature made human, and that art of the highest character is nature made human in the highest sense. It was pointed out that, for this kind of art, only such forms of nature are available as are audible and visible; and that these forms in such art are well used only when made significant of thoughts and emotions. In accordance with this understanding, it was maintained that all the higher arts are representative, and this in two senses,

—representative rather than presentative of the artist's thought or feeling ("Art in Theory," pp. 47 to 61), which fact causes them to be appropriately termed the humanities; and representative rather than imitative of that which he has taken from his audible or visible environment (pages 34 to 46), which latter fact causes them to be appropriately termed the arts of form, *i. e.*, of appearance (page 9), or æsthetic, *i. e.*, fitted to be perceived (page 102).

As justifying the first sense in which the term is used, the reader was reminded that, as thoughts and emotions cannot be heard or seen in themselves, they cannot be presented or communicated to our fellows directly. They must be *represented* indirectly; *i. e.*, through the use of a medium differing from themselves in that it can be heard and seen. This medium the mind must find in material nature, the sounds and sights of which it can accept, imitate, modify, and develop for the purposes of expression, but cannot originate (pages 3 to 5). While saying this, however, it was also said that, among the sounds of nature which may be used for artistic purposes must be included any sounds whatever, even though traceable to men. Their material bodies are manifestations of material nature; and, this being so, of course the same is true of their instinctively used, and what we may term natural, as distinguished from artistic, vocal utterances. Among the sights of nature, again, must be included, for the same reason, any visible movements or constructions of men; and, this being so, of course included among them must be also their instinctively used gestures. Owing to the imperceptible character of that which is within our minds, all outward expressions of this, and, therefore, all art, even of the most ordinary

kind, must exemplify the principle of representation. But the highest art must do so most emphatically. This is because it must give expression to processes of thought and emotion of the highest, in the sense of the most subtle, quality, and as these processes are the most distinctively mental, they are the most distinctively different in essence from any material form through which they can be expressed. It is, therefore, particularly necessary that when used as a vehicle for them the form should manifest this difference; and it can do so in the degree only in which it manifests clearly what is its own nature as contrasted with theirs; in other words, in the degree only in which its representative, as contrasted with any possibly presentative character, is particularly emphasized by being made particularly apparent.

This statement suggests that there is a connection between the use in art of the term representation, as meaning the expression of thought and emotion, and its more ordinary use in the second sense mentioned in our opening paragraph, *i. e.*, as meaning the reproduction of external phenomena. This connection arises from the fact that the communicative intention of the forms of expression can be made particularly apparent in the degree only in which the imitative character of the factors composing the forms—that is of the sounds and sights of external nature—is made apparent. This is the ground taken in Chapters VI. and VIII. of "Art in Theory," which are devoted to showing that the representation of thoughts and emotions and of external sounds and sights necessarily go together. An artificially shaped machine, it was said, at once suggests the question, "What can it do?" But a drawing or carving with a form resembling something in nature never suggests this question, but rather, "What

did the man who drew the object think about it or of it that he should have made a copy it?"

The principle that renders it possible for the forms of art to represent, in the senses just indicated, both mental processes and material surroundings is, in general, that of *correspondence*. But, subordinately, there are two different, though closely related, principles in accordance with which this correspondence may be manifested. One principle—which is the one mainly involved in the representation of thoughts and emotions—is that of *association;* the other, which is mainly involved in the representation of the appearances of nature, is that of *comparison*. For instance, to refer briefly to what will show the bearings of our present discussion upon the whole subject of art, it was said, when speaking, in "Poetry as a Representative Art," of the rise of language and its subsequent developments in poetry, that the earliest sounds made by a babe are *instinctive*, by which is meant, as explained there, that they are allied in nature to expressions of instinct, due, even in a rational being, to the operation less of conscious rationality than of natural forces vitalizing all sentient existence. These instinctive sounds, it was said, seem to be accepted as words in fulfilment, mainly, of the principle of *association*. The child cries and crows while the mother hums and chuckles, and both understand each other. They communicate through what may be termed *ejaculations* or interjections. This kind of language is little above the level of that of the brutes; in fact, it is of the same nature as theirs. The sounds seem to have a purely muscular or nervous origin; and for this reason may be supposed to have no necessary connection with any particular thought or psychic state intended to be expressed by them. Nevertheless, we all understand the

meanings of them when produced by the lower animals, as well as when made by man. Everywhere, certain ejaculations are recognized to be expressive of the general tenor of certain feelings, as of pleasure and pain, desire and aversion, surprise and fright. This fact shows that there is a true sense in which these utterances are representative. "However merely animal in their nature the earliest exclamations may have been," says Farrar, in his "Language and Languages," "they were probably the very first to acquire the dignity and significance of reasonable speech, because in their case, more naturally than in any other, the mere repetition of the sound would, by the *association of ideas*, involuntarily recall the sensation of which the sound was so energetic and instantaneous an exponent. In the discovery of this simple law, which a very few instances would reveal to the mind of man, lay the discovery of the Idea of Speech. The divine secret of language—the secret of the possibility of perfectly expressing the unseen and immaterial by an articulation of air which seemed to have no analogy with it—the secret of accepting sounds as the exponents and signs of everything in the 'choir of heaven and furniture of earth'—lay completely revealed in the use of two or three despised interjections. To borrow a simile from the eloquent pages of Herder, they were the sparks of Promethean fire which kindled language into life."

The principle of association in connection with the use of natural exclamations, accounts probably for the origin not only of actual interjections, but of other sounds also, like the sibilants, aspirates, and gutturals, giving their peculiar qualities to the meanings of syllables like those in *hush*, *hist*, and *kick*. Some, too, think that it accounts for the origin of words like *is*, *me*, and *that*, cognate with

the Sanskrit, *as*, *ma*, and *ta*; the first meaning to breathe, and indicating the act of breathing; the second closing the lips to shut off outside influence, and thus to refer to self; and the third opening the lips to refer to others. In the same way, too, because the organs of speech are so formed that the earliest articulated sound made by a babe is usually either *mama* or *papa*, and the earliest persons to whom each is addressed are the mother and father, people of many different races have come to associate *mama*, which, as a rule, is uttered first, with an appeal to the mother, and *papa* with an appeal to the father.

In order, however, that utterances springing from exclamations may be used in language, it is evident that men must begin to imitate them, which they can do as a result only of *comparison*. This principle, therefore, as well as that of association, must have been closely connected with the formation of the earliest words. Ejaculations, as has been said, are instinctive. As such, they come first in the order of time. The imitations of them with the purpose of making them accepted as words do not appear till the *reflective*[1] nature begins to assert itself and then they soon extend to the reproduction of other sounds besides ejaculations—sounds that are representative of natural effects external to man, and that become accepted as words as a still more immediate result of *comparison*. These latter sounds are first heard when the child is led to notice external objects. Then, unlike the animal which can only ejaculate, but just like his reputed father Adam, the first who had a reflective nature, he begins to give names to these objects, or to have names given to them for him by others. These names, according to the methods controlling the formation of nursery language, are always based upon the principle of imitation. Certain

[1] See page 127.

noises emanating from the objects designated, the *chick-chick* of the fowl, the *tick-tick* of the watch, the *cuckoo* of the bird over the clock, the *bow-wow* of the dog, and, later, the *clatter* of the *rattle*, or the *rustle* of the silk or satin, are imitated in the names applied to them; and this imitative element enables the child to recognize what the object is to which each name refers. The existence of hundreds of terms in all languages, the sounds of which are significant of their sense, like *buzz*, *hiss*, *crash*, *slam*, *bang*, *whine*, *howl*, *roar*, *bellow*, *whistle*, *prattle*, *twitter*, *gabble*, and *gurgle* (many of which are of comparatively recent origin), is a proof that the principle of imitation is an important factor in the formation of words. "Through all the stages of growth of language," says Whitney in his "Language and the Science of Language," "absolutely new words are produced by this method more than by any other.'

In the essay in which these facts with reference to the origin of language are brought out, the ground is taken that poetry, as an artistic development of language, is an artistic development of these elementary principles of representation through association and comparison, and, one by one, all the different characteristic features of poetic form are traced to them. Similar ground is taken in the essay entitled "Music as a Representative Art." In that, it is shown that the sounds of the voice in speech, their movements, for instance, whether slow or fast, as when indicating important or unimportant statements, or upward or downward, as when questioning or asserting, are necessarily suggested whenever corresponding movements are heard in musical motives, and that, therefore, in such cases, these motives may be rightly termed representative by way of association. It is shown, too, that other musi-

cal movements, like those resembling the rhythm of horses' feet when galloping, or the variations and trills of a bird when singing, are directly imitative, and, therefore, representative by way of comparison.

The present essay is designed to show that correspondences of the same general character underlie representation in painting, sculpture, and architecture, which in these arts also are manifested by way both of association and of comparison. Association and comparison, however, as has been pointed out in former essays of this series, are in all cases very closely allied, and sometimes are practically inseparable. Association is based upon suggested likeness in the underlying principle exemplified in two things which are apparently different. Comparison is based upon apparent likeness in the things themselves. Whether, as a fact, we connect them by way of association or of comparison, depends partly upon our point of view, and partly upon the degree of external similarity between them. Sometimes we *associate* things that are different in specific details, because they are connected with some identical general effect. Thus we associate the moon and the stars, because both are connected with the general effect of the night-time; or hens and turkeys, because both are connected with the general effect of a barn-yard. Yet while this is true, observe also that, in case we be thinking of the heavenly bodies, we can also *compare* the moon and stars, because, from that point of view, we can find many regards in which in specific details the two are alike, and so, in case we be thinking of fowls, we can compare hens and turkeys. Again, in case a Greek column supporting a heavy entablature be perceived to be like a Gothic column supporting a heavy arch, in one regard alone, namely, in

being large in size, then we can say that the one column suggests the other by way of *association.* But in case the Greek column be perceived to be like another Greek column in most regards or in many regards, then we can say that the one definitely recalls the other by way of *comparison.* Moreover, in case we have learned that the Greek column is large in order to hold up a heavy weight, then we can infer that the Gothic column is large in order to do the same thing; and we may say that the latter, by way of *association,* represents the same general idea, or conception, of strength in support which we have originally derived from the former. But if the latter column as well as the former be Greek, that is, if both columns manifest the same details of appearance, then we may say that the latter not only represents the same idea or conception of strength in support as does the former, but that it does this by way of *comparison* as well as of association.

There is a difference also, though this too is not always clearly distinguishable, between the ways in which the mind recognizes and gives expression in art to associative and comparative representation. In that which is associative, its action is usually *instinctive.* It recognizes the resemblance through an exercise of imagination, and indicates it to others by way of suggestion. The likeness is not proved logically, and it cannot be, because objects manifesting it reveal as many differences which misrepresent as resemblances which do the opposite. In comparative representation, on the contrary, the action of the mind is usually *reflective.* The likeness between factors is recognized because it is susceptible of proof, and the artistic use of them being the result of well considered imitation is conditioned upon

resemblances in all their essential features. Notice, nevertheless, that, as a rule, any visible object which can be used for artistic purposes is, to a certain extent, representative in both the ways that we have been considering. When representative chiefly by way of association, as the moon of the stars, or the hens of the turkeys, the objects generally manifest partial resemblances that can be compared; and when representative chiefly by way of comparison, they manifest partial characteristics that can be associated. If this be true, then it must be true also that the action of the mind in recognizing and using the principle of representation must to an extent be both instinctive and reflective.

In "Art in Theory," it is stated that by instinctive mental processes are meant those which are conducted according to unconscious methods, and are analogous, for this reason, to the results of the promptings of instinct in the lower animals. It is in this instinctive way that the child utters ejaculations, to which, as shown on page 4, certain of our words owe their origin, and it is in the same way that melodies and verses are sometimes composed, singing themselves into existence, the musician or poet hardly knowing how or whence they come. In the same way, too, children and the uncultivated gesture, and even draw and carve and build, the action of mind in the elementary processes of these arts not being essentially different from that in which the bees or birds or beasts construct their honeycombs or nests or dens. But poetry and music deal also with words, notes, and phrases, originated with a clear reflective consciousness of surrounding phenomena with which, by way of imitation or description, the sounds used in the arts are made to compare. It is the same in the arts of sight. What is ever constructed by an animal showing

thought and discrimination,—and, in this sense, reflection with reference to surrounding appearances—of the same quality as that which characterizes the forms used in painting, sculpture, and architecture? And to what can it be owing except to this *reflective* action of the mind working according to the calculating methods of reason that, even though general conceptions of paintings, statues, or buildings may result from sudden and *instinctive* inspirations, all special technical effects are, as a rule, produced slowly, and with a clear conception of the reason for the introduction of each detail?

It may be said, therefore, that all art involves more or less both of the *instinctive* and also of the *reflective* action of the mind. But it was shown on page 233 of "Art in Theory," that it is when the results of reflection are added to those of instinct, or of instinct to those of reflection; when, therefore, neither one of these elements alone is present, but both together,—it is then that we have in the product an illustration of what, in distinction from either *instinctive* or *reflective*, we may term an *emotive* influence. A man, for instance, may eat and sleep like an animal, instinctively, or he may think and talk reflectively, without giving any expression to what we mean by emotion. But as soon as he thinks and talks so as to give expression to his ideas with reference to eating and sleeping, as is the case with a caterer or upholsterer, an hotel keeper or a house-wife; or as soon as his natural physical instincts prompt and accentuate his thinking and talking, as is the case with an actor or a good story-teller, then, as a result of instinct made thoughtful, or of thought made instinctive, he begins to manifest his emotive nature; and the character of his emotion is represented by the degree in which the one or the other of the two ten-

dencies—instinct or thought—is in excess. It may be interesting to point out also that, acccording to ordinary conceptions, the power which blends or balances the instinctive or physical and the reflective or mental, is the soul, holding body and mind together, influencing and influenced by both; and also that, according to ordinary conceptions, it is the same thing to put *emotion* into an expression and to put *soul* into it. Neither can be manifested in it unless it represent a blended result both of nerve and of thought, of instinct and of reflection. See the note at the foot of page 14 of "Poetry as a Representative Art."

Accordingly we find that the very same condition which causes a product of the arts of sight to represent both mental processes (by way of instinctive association as indicated on page 4) and natural surroundings (by way of reflective comparison or imitation, as indicated on page 4), causes it to be expressive of that which all acknowledge to be of such great importance in art, namely, emotion. This, which is an evident logical conclusion from what has been said, corresponds also to the testimony of facts. For instance, a picture of a child represents by way of association any child, and therefore causes a mother to recall instinctively her own child, and, for this reason, to take an interest in the picture. But in the degree in which the picture, besides this, represents her child by way of comparison—in the degree in which agreement in each detail of sex, age, size, dress, and countenance satisfies her critical reflective powers, in this degree will the interest awakened in her pass into emotion. The same principle applies to scenery. Owing to their associations with some particular lake or mountain, certain persons are instinctively interested in a painting of any lake or mountain. But the

distinctively emotional effects of the picture are always increased in the degree in which all the details, the more men reflect upon them, are perceived to resemble those of the particular lake or mountain with which they have associated it. So with sculpture and architecture. Because of the principle of association, certain persons cannot avoid an instinctive tribute of reverence when they enter any chapel and stand before the statue of any saint. But let the chapel or statue, either in its general form or in certain of its details—as of flowers, leaves, symbols, etc.,—recall, distinctly, by way of comparison, that particular chapel or personality with which they associate it, and their reverence will be the result of a deeper phase of emotion. Thus we find both logic and experience confirming from a new point of view what was said in "Art in Theory" with reference to the importance in high art of having the art-form represent both mental conceptions—to represent which alone it would need merely to suggest a certain association of ideas, and also audible or visible material phenomena—to represent which alone, it would need merely to manifest imitation.

CHAPTER II.

CORRESPONDENCES BETWEEN THE FACTORS OF REPRESENTATION IN THE ARTS OF SOUND AND OF SIGHT.

Factors of Visible Representation to be Considered Separately and as Combined—Duration, Time, and Pauses in Sounds Correlated to Extension, Size, and Outlines in Shapes—Force, Gradation, and Regularity among Sounds Correlated to Similar Effects in Shapes—Measures, Rhythm, and Accent Correlated to Measurements, Proportion, and Shading—Pitch and Quality of Sound Correlated to Effects of Color—Effect of Accent on the Pitch of Tones Correlated to that of Shading upon Color—Each Factor of Visible Effect Representative—Instinctive, Reflective, and Emotive Representation Illustrated as Applied to Extension or Size—As Applied to Shading and Color.

IN order to accomplish the end that we have in view, let us begin, in conformity with what was done in the essays treating of representation in poetry and in music, by analyzing the various factors of expression common to all art-products that appeal to the eye, and by determining, if we can, what each factor, when considered by itself, is fitted to represent. If, as a result, we find that it is possible to determine this, then we shall evidently have a right to conclude that it is possible to determine the meanings of all the factors when appearing together, for, thus combined, they must be capable, like the letters of a symbolic alphabet, of representing mental processes or material surroundings of a more complex character.

What then are the factors of expression in painting, sculpture, and architecture? The first mentioned, when speaking of the arts of sound, was time or duration. Corresponding to this, we notice, as the first here, *space* or *extension.* As time in music and poetry is divided into syllables or notes, each of a certain duration, so in painting, sculpture, and architecture, space is divided into shapes, each of a certain size. Different sounds are distinguished from those surrounding them by cessations or changes in the character of the tone, but, conventionally, the changes as well as the cessations are termed *pauses.* Different shapes are distinguished by vacancies or changes in the appearance of surfaces, but the former as well as the latter are indicated by *outlines.*

Sounds again, as used by poets and musicians, are apparently distinguished from one another by different degrees of force expended either by the voice or upon instruments in producing them. So, correspondingly, different shapes, as used by painters, sculptors, or architects, are apparently distinguished by different degrees of force exerted in handling the pencil, brush, chisel, mallet, or whatever it may have been, with which they have been produced. To the arts of sight, the term force is not often applied, but characteristics like *vigorous* and *energetic* are frequently ascribed to a source analogous in conception, termed *stroke* or *touch*, when reference is made to painting; and *handling*, when reference is made to painting, sculpture, or architecture. The methods of using force in the production of sound may differ, as indicated in Chapter VI. of "Poetry as a Representative Art," in degrees of *strength*, of *gradation*, and of *regularity.* Differences in degrees of *strength* cause sounds to be loud or soft. Differences in *gradation*, by which is meant the way

in which one sound is made to pass into another, are of three general kinds. The first causes the utterance to begin loud and end soft, as in *initial* elocutionary stress; the second causes it to begin soft and end loud, as in *terminal* stress; the third causes it either to begin soft, gradually swell louder, and then sink to soft again, as in *median* stress, or—what in consecutive discourse produces the same general effect—to begin loud, gradually sink softer, and then swell to loud again, as in *compound* stress.[1] These three kinds of gradation, when applied in connection with accent, not to single syllables but, without regarding divisions between words, to double syllables (as in *do it*), or to triple syllables (as in *misery*), or to more syllables (as in *inseparably*), cause poetic, and, as developed from them, musical measures. Finally, differences in regularity cause consecutive effects that are repetitious, or the reverse, of the same degrees or gradations of force. That is to say, they cause an even, uninterrupted flow of sound, or, at least, regularly intermittent changes in it; or, otherwise, they cause an uneven, interrupted flow of sounds, with irregular and abrupt changes. Exactly analogous differences are distinguishable in the results of touch or handling, however we may term it, in the arts of sight. Viewed only with reference to apparent effects, which are all that we are now considering, differences in degrees of what is variously called strength, vigor, energy, cause the factors of delineation, whether produced by pencil, brush, chisel, or arrangements of masonry, to appear to be strong or weak, broad or narrow, coarse or fine, firm or faint, dis-

[1] Of the other two forms of stress used in elocution, *thorough*, in which the tone is said to continue the same throughout, is practically an absence of gradation, and *tremulous* stress in which the voice keeps up a constant waver, is an intermittent phase of the same.

tinct or vague. Differences in gradation cause a shape to be outlined either gradually, as in curves, abruptly, as in angles, or both gradually and abruptly, as where curves and angles are used together. Differences in regularity cause variations in the numbers of corresponding outlines, which, if present, produce an impression of like widths, lengths, directions, and gradations—an impression invariably accompanying such artistic effects as those with which we are all familiar under the names of parallelism, balance, and symmetry.

Important to notice, too, is the fact that, as among sounds, the differences in the times after which syllables and notes give place to others are developed into *measures*, and the measures, taken together, determine the effects of *rhythm;* so among shapes the differences in the spaces beyond which the factors of delineation give place to others are developed into what we all understand by the term *measurements*, and the measurements, taken together, determine the effects of *proportion.* Moreover, as in the arts of sound, an alternation of loud with soft force in each *measure* determines its general character, and, through this, the character of the *rhythm;* so exactly analogous contrasts, with an exactly analogous effect upon *measurements* and *proportion* are produced among the factors of delineation in the arts of sight. That which produces this effect among sounds is termed *accent*, that which produces it among sights is termed *shading*, or *light and shade*, or *chiaroscuro.* Without the aid of this latter, it would be as impossible to indicate in painting whether a surface were intended to seem flat or round or pointed, as without accent to distinguish the meaning in the word *conjùre* from that in *cònjure.* In other words, shading *emphasizes* in the arts of sight just as accent does

in the arts of sound. See Fig. 16, page 41; Fig. 17, page 43; and Fig. 18, page 45.

Again, in the volumes treating of poetry and of music, we found sounds distinguished from one another not only by *duration* and *force*, including *gradation* and *regularity*, but also by *pitch* and *quality*. So shapes, besides differing as to the *spaces* filled by them, and as to the *strength*, *gradation*, and *regularity* of the elements of their factors of delineation, differ also in what, for reasons to be given in Chapter XI., may be termed the *pitch* and *quality* of their coloring.

Notice, also, that, just as accent necessarily determines the relative pitch of consecutive syllables, and, therefore, the tunes of verse; and, so far as it determines these, determines also the melody (see "Poetry as a Representative Art," Chapters VIII. to X.), so *light and shade* have an analogous influence upon what is here termed the pitch of the colors. We may use light and shade without color; but, if we are using color we must, in art at least, use them also. Once more, in the arts of sound the combined effects of accent, pitch, and quality, taken together, cause *tone*. The same word, though, as technically applied, it has a narrower meaning, is used to indicate the combined effects of shading, and the pitch and quality of color. These correspondences, as will be observed, hold good throughout.

It will be observed also, as we go on, that each particular effect in the elements of sight, as in those of sound, is representative; and that it is so because of an application of the principle either of association or of comparison; or, sometimes, as is frequently the case, of both of these together. To anticipate a little, as was done in Chapter III. of "Poetry as a Representative Art," we shall find,

as applied to the representation of mind—as distinguished from the representation of external phenomena, which, being mainly imitative, usually interprets itself—that the degree of *extension* or the *size* indicates what the artist conceives to be—and, therefore, uses to express—the degree of material and, in this sense, *physical* influence; whereas the other effects indicate what he conceives to be—and, therefore, uses to express—the degree of *mental* influence. Of these effects, *touch* or handling, as manifested in the relative strength, gradation, or regularity of lines or their shading, naturally suggests the relative expenditure of *will-power*. Pitch, as manifested in the relative brightness either of hues or of the light that is in them, naturally suggests the mental *motive*, a brilliant color attracting the attention and a dull color doing the opposite; and quality, as manifested in the relative purity of hues, as in blues or reds, or mixture of hues, as in grays or browns, naturally suggests the mental *feeling*. Thus we may say that extension *measures*, touch *energizes*, the degree of color *aims*, and the quality of color *tempers* the appearance; that the first determines the *scope of influence;* the second, the *degree of executive force;* the third, of *intellection;* and the fourth, of *emotion* or *soul*.

There are phases of each effect, too, indicative, on the one hand, of a predominating *physical*, and, as connected with this, *instinctive* tendency; or, on the other hand, of a predominating *mental*, and, as connected with this, *reflective* tendency; besides which there is a combination of both tendencies in what, for reasons explained on page 11, may be termed *emotive*. For instance, extension, in the degree in which it is not divided into parts by outlines, and therefore conveys mainly the impression of bulk, causes us to think chiefly of the *physical* in the sense of

material effect; but if there be many parts, separated by many outlines, that need to be carefully observed and studied in order that each detail of shape may be perceived and understood, then it is the *mental* effect of which we chiefly think. With the thought of the physical effect comes, too, a suggestion of an *instinctive* action of the mind; and with the mental effect a suggestion of a *reflective* action. Thus huge stones in a doorway, or huge pillars in a porch having heavy masonry above them, are so evidently necessary in order to afford the needed *physical* support, that it seems as if the builder must have chosen them *instinctively* rather than *reflectively*. But the light steel rods and bars in suspension or cantilever bridges are so evidently indicative of the results of experiment and contrivance, that we cannot avoid the impression that they were determined upon as the result of *reflection*. Often, however, the heavy doorway or column may be so carefully carved, so minutely divided by outlines into all sorts of details of shape, that it suggests not only the physical but also the mental, not only the *instinctive* but also the *reflective*; and it is then that, in accordance with

FIG. 1.—FARNESE HERCULES BY GLYCON THE ATHENIAN.

See pages 21, 24, 26, 281.

what was said on page 11, we have that *emotive* manifestation universally attributed to that artistic development of the technicalities of building which we term architecture. Or consider another example. The human form, on account of the obvious blending in it of the physical and the mental, the instinctive and the reflective, always conveys (see page 11 again) some impression of emotive effects. Yet observe how much more the purely physical effect predominates in the bulky limbs of the Hercules, Fig. 1, page 20, than it does in the slender limbs of the Flying Mercury, Fig. 2, page 21. Is it not true, too, that the very shape of the former suggests less capacity for mental action than does that of the latter, whose whole appearance suggests at once an embodiment of energetic intelligence?

FIG. 2.—FLYING MERCURY, BY GIOVANNI DA BOLOGNA.

See pages 21, 25, 26, 62, 73, 135, 152.

Again, we shall find that, as applied to touch or handling, the *physical* and, in this sense, *instinctive* expression of will-power is chiefly conveyed through the *degrees of strength* manifested in the outlines; that the purely *mental* and, in this sense, *reflective* expression of the same is chiefly conveyed through the use that is made of curves, angles, or combinations of them, while in those uses of

degrees and gradations of outlines that lead to regularity or the lack of it, we find the possibilities of *emotive* expression. Finally, as applied to the *pitch* and *quality* of color, we shall find that darker phases of it—as in those greens, blues, and grays which predominate in the natural world about us—are the colors that most naturally recall surrounding *physical* appearances, and, therefore, are the ones most likely to be used when trying to represent these; and that the brighter hues, as in the reds, oranges, and yellows, indicative, as they usually are, notwithstanding their exceptional presence in flowers and autumn foliage, of things that a man has painted or dyed, are those most likely to suggest him, and, therefore a *mental* influence; while it is through an appropriate blending of the two extremes, *i. e.*, through the use of great variety of color, that the most effective appeal is made to the *emotions*. It has been thought best to make these statements here by way of anticipation, in order to aid the reader in forming an intelligent conception of that toward which the more ample explanations of the discussion that is to follow are to be directed.

CHAPTER III.

REPRESENTATION BY MEANS OF EXTENSION OR SIZE.

Representation in Art Based upon Methods of Expressing Thought and Emotion through the Use of the Human Body—Size as Representing Heaviness, Strength, Immovability, Substantiality, or the Opposite—As Representing the Important, Influential, Dignified, or the Opposite—The Representations of these Conceptions Made Consistent with the Representation of Actual External Appearances through the Laws of Perspective as Indicating Nearnesss—Differences between Requirements of Representation in these Arts and in Music and Architecture—Similarity, Nevertheless, in the Methods of Representation—As Applied also to the Laws of Perspective—Recapitulation and Illustrations of these Methods as Applied to Size.

THE principles that have just been stated have now to be exemplified as manifested in each of the elementary factors of visible representation. The first of these was said to be *extension* or *size*. As indicated in Chapter XX. of "Art in Theory," any of these factors have a meaning for a man because of the expressional uses which he himself makes or sees others make of like factors in his own body. Thus the sounds employed in poetry and music represent thought and emotion, because of what men know of the audible representation of the same through the utterances of the human voice; and in a similar way things that are seen represent thought and emotion because of what men know of the visible representation of the same through the movements of the human muscles.

To apply this to size, men have learned through their own experience in lifting, or from what they have seen of others' lifting, that a large object, one that fills a large amount of space, is, as a rule, heavier than small objects,

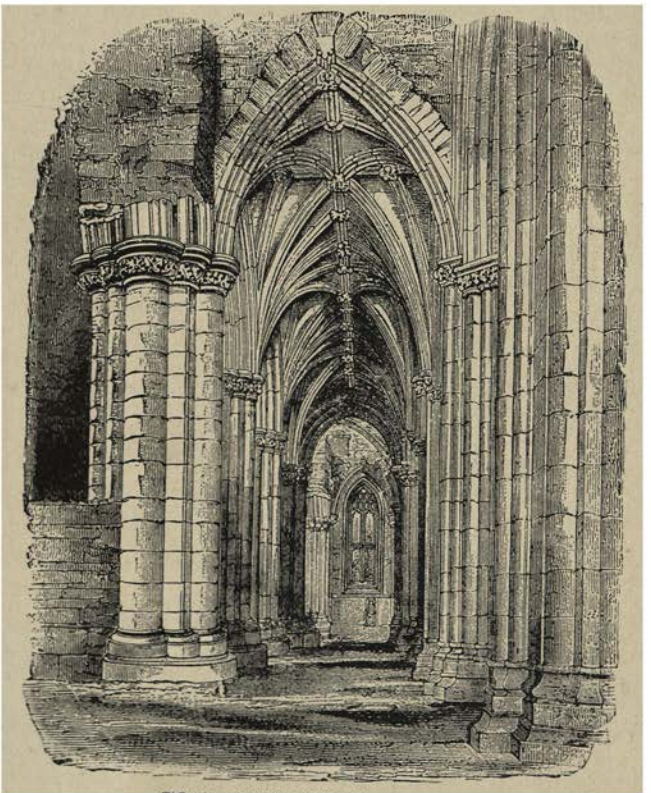


FIG. 3.—MELROSE ABBEY, SCOTLAND.
See pages 25, 26, 32, 34, 203, 322, 380, 390.

and can consequently bear a heavier weight or, as we say, is stronger. It is evident, therefore, that comparatively large limbs, like those of the Farnese Hercules, Fig. 1, page 20,

and large pillars like those of Melrose Abbey, Fig. 3, page 24, necessarily suggest, by way of association, such conceptions as *heaviness*, *strength*, *immovability*, or *substantiality;* whereas comparatively slender limbs, like those of

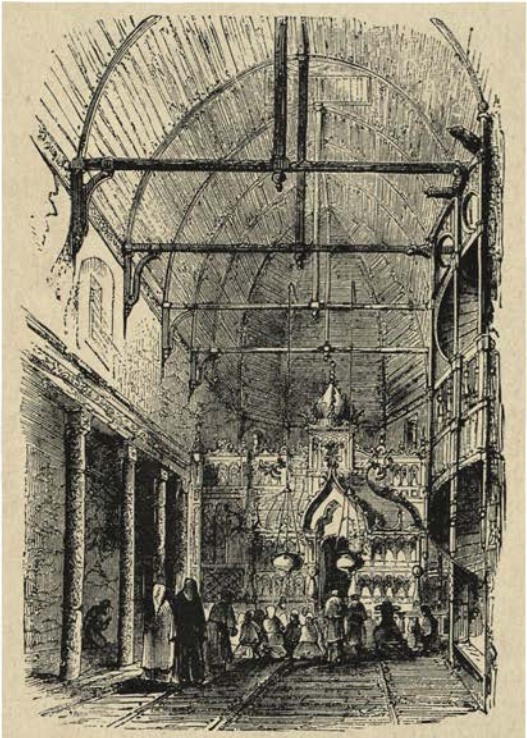


FIG. 4.—CHURCH NEAR KOSTROMA, RUSSIA.

See pages 25, 26, 32, 34.

the Flying Mercury, Fig. 2, page 21, or small pillars like those of the interior of the church near Kostroma, Fig. 4, page 25, suggest, in the same way, a lack of weight and therefore such conceptions as *lightness*, *weakness*, *mova-*

bility, or *unsubstantiality*. No one would expect the Hercules to be able to fly, but he might expect this of the Mercury. The columns of Melrose Abbey would seem out of place unless the roof were very heavy; and those of the church at Kostroma would be equally out of place unless the roof were very light. We cannot imagine any attempt to remove intact the former building from the place in which we find it; but it is not impossible to conceive of putting rollers under the latter and transporting it across the country.

Just here it may be well to point out the confirmation afforded by these facts of the view advanced in "Art in Theory," that beauty involves effects produced by significance as well as by form; or, to quote the language there used, that "Beauty is a characteristic of any complex form of varied elements producing apprehensible unity (*i. e.*, harmony or likeness) of effects upon the motive organs of sensation in the ear or eye, or upon the emotive sources of imagination in the mind; or upon both the one and the other." Notice how true this is, as applied precisely where the opponents of this view would be most likely to say that it could not be applied *i. e.*, to the human form. No possible conception of the mere effects of curves, straight lines, or angles could account for the lack of beauty which all feel to be characteristic of clumsy joints, as at the neck, wrists, and ankles; or of fragile centres of force, as in the head, chest, and calves. The only way in which to account for these effects of size is to acknowledge that, by way of association, the former suggest a lack of agility and, therefore, of the possibilities of grace, and the latter a lack of brain, breath, or brawn, and, therefore, of the possibilities of strength.

But to go back to the line of thought from which this

is a digression, it may be said again that an object of large size, as contrasted with surrounding objects of small size, represents that which is *important* or *influential*. To recognize this fact, as well as another, which is that, according to the methods of expression in art as actually developed, the desire to represent mental conceptions sug-

FIG. 5.—PIANKHI RECEIVING THE SUBMISSION OF NAMRUT AND OTHERS.

See pages 27, 50, 222.

FIG. 6.—HERACLES, TRITON, AND NEREIDS FROM DORIC TEMPLE AT ASSOS.

See pages 27, 222.

gestively by way of association antedates the desire to represent imitatively the actual conditions of external appearances, notice the size of the king in Fig. 5, page 27, illustrating early Egyptian art ; also that of the Hercules in Fig. 6, page 27, illustrating early Greek art ; as well as in that of Henry II. in Fig. 7, page 29, illustrating the early

art of the middle ages. The large form in each of these figures clearly indicates, by way of association, the artist's idea of its relative importance and influence; but it fails to indicate by way of comparison any condition that he could even have conceived it possible to imitate from actual appearances. Notice that it is mainly for this reason, too, that the figures do not illustrate high art.

As has been maintained throughout this series of essays, high art must represent both one's conceptions concerning forms, and the actual conditions in which the forms appear in nature. But how, it may be asked, can art by means of size represent one of many figures as being more important, and yet represent all of the figures as being of the same relative size as in nature? How but precisely as was done in later Greek art, and is done in all our art of to-day?—namely, by an application of the natural laws of perspective, *i. e.*, by depicting the important figure or figures as being in the foreground of an art-product and the unimportant figures as being in the background. This can produce the desired effect because, in addition to what has been indicated already, large size, as contrasted with small, indicates *nearness*. See Fig. 8, page 31, also Fig. 168, page 297. Accordingly, by carrying out the laws of perspective, the grouping, either in painting or sculpture, may be made to represent both the relations in the mind of the conceptions which are associated with the figures, and also the relations in nature of the appearances of the figures with which those of the art-product are made to compare.

The fact of the representation both of mental processes and of material appearances is more difficult to recognize in architecture and music than in the other arts. This is because of the different mode of expression of which

FIG. 7.—HENRY II. RECEIVES FROM GOD THE CROWN, HOLY LANCE, AND IMPERIAL SWORD. (FROM "HENRY'S MISSAL.")

See page 27.

these other arts are developments. This mode is termed in "Art in Theory" *responsive* and *unsustained*, which terms are intended to indicate that the forms are occasioned by an endeavor to respond to one and, afterwards, to another outside interruption, or, at least, emergency, as is exemplified when a cat moves about and mews, or when a bird flits from branch to branch and chirps, or when a man, gazing from one to another of his surroundings, refers frequently to what he hears here or sees there. If he do this by word, we have that which develops into poetry; if by deed, that which develops into painting or sculpture. But, aside from this mode of expression, there is another which may be termed *subjective* and *sustained*. In accordance with this, the cat keeps quiet and purrs, the bird stays on one branch and sings, and the man works and hums to himself, developing a plan or a melody from some single outside suggestion, without consciousness of interruption,—or not, at least, of anything like frequent interruption—in which other things are suggested. It is this subjective and sustained mood that is at the basis of representation in architecture and music. Because the mood is subjective rather than responsive, there is less necessity in these arts than in poetry, painting, or sculpture for expressing thoughts and emotions in such ways that they shall communicate definite information; and because the method of expression is sustained, there is less consciousness of external surroundings, and therefore less tendency to describe and imitate their appearances. For these reasons, the resemblances to external appearances at the bases of these two subjective arts are comparatively few. They are sometimes comprehended in a single significant series of outlines or of tones from which the whole product is

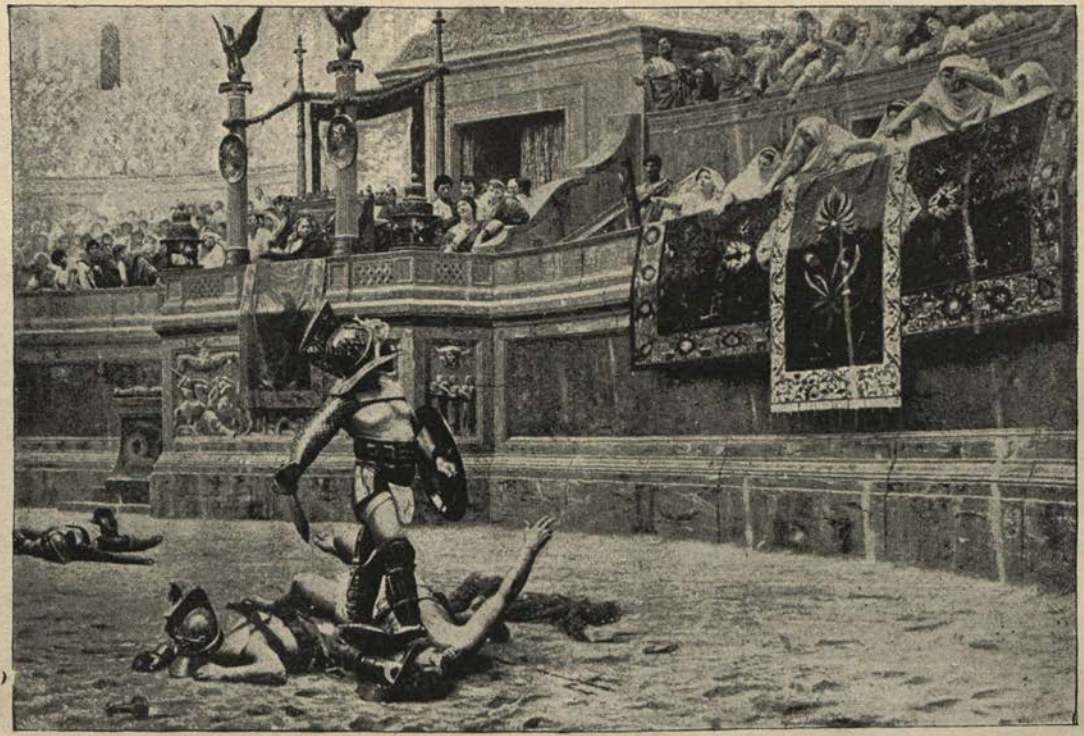


FIG. 8.—POLLICE VERSO, BY GÉRÔME.

See pages 28, 34, 91, 274, 287, 295.

developed in a way not possible in poetry, painting, or sculpture. But because the method is different in its practical application, it must not be supposed that it is different in principle. The representation, though not the same in degree, is not radically different in kind.

It has already been shown, for instance, that by way of association, pillars of large size may represent the conception of strength as applied to support. It is evident, too, that they can do this no matter what may be the shape of that which is above them. But suppose that, taking a suggestion, as the early architects apparently did, from the way in which limbs branch out from tree-trunks (see Figs. 9, page 33; 43, page 84; and 44, page 85), the wood and stone which the pillars support are also made to branch off from them as in arches (see Fig. 3, page 24) or that, taking a suggestion from the way in which the petals of flowers branch out from their stems, the different parts of the tops of the columns are made to branch out from them as in the Egyptian capital, Fig. 10, page 34, or the Greek Corinthian capital, Fig. 11, page 34, is it not evident that, when this has been done, something has been done which adds to the representation of the mere conception of supporting strength, a representation of an effect that is produced by appearances in nature?

Again, the laws of perspective, in architecture, as in painting and sculpture, give to large as contrasted with small size an effect of *nearness*. Massive outlines, therefore, in walls, pillars, ceilings, domes, spires, lessen our appreciation of their distance from us. It is safe to say that, although their actual measurements were the same, the width of the floor-space represented in Fig. 3, page 24, would appear to be scarcely more than half that in Fig. 4, page 25. So, too, owing to the massing of out-

FIG. 9.—A SCENE IN THE WOODS.

See pages 32, 73, 399.

lines in large, unbroken spaces, the church represented in Fig. 12, page 35, would, at the same distance, appear to be so much nearer us than would the more minute outlines in Fig. 13, page 36, that these might seem relatively larger and higher. In fact, this effect of the massing of spaces is one reason why, as a rule, most Greek buildings (Fig. 14, page 36) or Greco-Roman (Fig. 12, page 35) appear smaller and lower than Gothic buildings of approximate dimensions. One must not lose sight of the fact, however, that these effects are subject also to the principle of contrast. In the painting in Fig. 8, page 31, it is the contrast between the larger forms at the front and the smaller at the rear that cause the former to seem nearer. So in architecture. Notwithstanding the effects of slight distance conveyed by the large pillars in Fig. 3, page 24, the contrast between the width and the height of the whole building being greater than between the same dimensions in Fig. 4, page 25, may give a greater impression of height than is conveyed by the latter. Notice

FIG. 10.—EGYPTIAN LOTUS-LEAF CAPITAL FROM EDFU.

See pages 32, 394, 398.

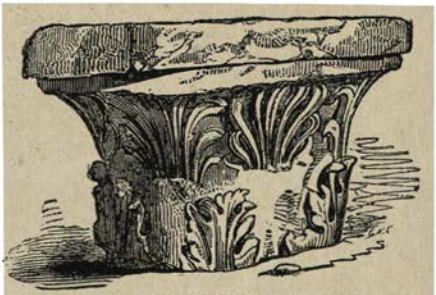


FIG. 11.—OLD CORINTHIAN CAPITAL FROM BRANCHIDAE.

See pages 32, 380, 398.

the same principle as exemplified in the effect of the tower in Fig. 24, page 52, as contrasted with that in Fig. 25, page 53. As in all Gothic buildings the height usually

FIG. 12.—ST. ISAAC'S, ST. PETERSBURG.

See pages 34, 36, 38, 42, 52, 82, 352, 353, 356, 380.

exceeds the width to an extent not true of other styles, we see a second reason for their apparently greater altitude. To observe this, compare the effects of the Gothic forms in Fig. 41, page 81, with the Greek forms in Fig. 14,

page 36, the Greco-Roman forms in Fig. 12, page 35, and the combination of the Romanesque and Byzantine in Fig. 15, page 37. Another reason for this effect of altitude in Gothic buildings will be found on page 68.

FIG. 13.—HOUSES OF PARLIAMENT, FROM OLD PALACE YARD.

See pages 34, 38, 42, 52, 322, 358, 380.

Further explanations of methods of representing, in architecture, both mental conceptions and material appearances, will be found in Chapters XVII. to XXI. At present, enough has been said to enable the reader to understand the general tenor of what is meant by affirming that this is possible, and, for the highest excellence, is

FIG. 14.—TEMPLE OF THESEUS, ATHENS.

See pages 34, 35, 38, 42, 52, 84, 86, 322, 323, 380, 386, 387, 389.

essential. Not only in painting and sculpture, but in architecture also, relatively large and small extension, corresponding in this regard to relatively long and short duration, have inevitable representative effects. Either by way of association or of comparison, or of both, they respectively indicate what is *heavy*, *strong*, *substantial*, *immovable*, *important*, *influential*, *dignified*, *near*, on the one hand; or else, on the other hand, what is *light*, *weak*, *unsubstantial*, *movable*, *unimportant*, *uninfluential*,

FIG. 15.—CHURCH OF ST. MARK, VENICE.

See pages 36, 38, 42, 52, 78, 82, 86, 380.

undignified, *remote*. It is this principle that causes us, when looking at objects, to think more of a statue than of a doll, more of a cathedral than of a cottage, more of the fingers on a statue than of the fringe on which, perhaps, they rest, and more of the towers and domes of a building than of its chimneys and ventilators. The same principle applied in connection with the natural laws of perspective, causes us to give more consideration to the full-sized figures in the foreground of a paint-

ing than to the minute objects in its background. If the picture be designed to interest us in animals, this fact is represented by large size that brings them to the front; if in a pasture in which they are feeding, by small size that sends them to the rear. Overbalancing foliage, with a cherub's face just visible in it, emphasizes the prodigality of inanimate nature. A full-sized statue, with a few flowers about it, emphasizes the pre-eminence of man. Contrast the lower and upper parts of Fig. 231, page 396. In a building, the requirements for the support either of many occupants or of a heavy superstructure are represented by large foundations, walls, or pillars (see Fig. 14, page 36); accommodation for crowds, by wide entrances (see St. Mark's, Fig. 15, page 37); for light, in large, high rooms, by large windows (see Fig. 13, page 36); and for air, by high roofs or domes (Fig. 12, page 35, and Fig. 15, page 37).

CHAPTER IV.

REPRESENTING BY MEANS OF SHAPE: THE ACCENTING OR SHADING OF OUTLINES.

Force, Pitch, and Quality, as Exemplified in the Arts of Sound—Illustration—Pause and Accent as Correlated to Outline and Shading—Touch or Handling as Differing in Strength, Gradation, and Regularity: Strength—Examples of Strength and Delicacy of Touch in Outline Sketches—Other Examples—The Same as Applied in Connection with Color—As Applied in Sculpture—As Applied in Architecture—The Importance of the Effects of Light and Shade in this Art.

BEFORE passing on to representation as produced by shape as distinguished from size, let us recall again, and elaborate that which on page 15 was said to correspond in the arts of sound to shape. In that place the reader was reminded that a syllable or note exemplifying one form of duration, whether long or short, is always separated from another either by a pause involving an entire cessation of sound, or by some change in the mode of utterance, involving a cessation in the character of the sound, and that, in the latter case, the change is produced, first of all, by a difference in what is variously called *force*, *intensity*, *stress*, or *accent*. This difference causes a tone, by means of degrees of *strength*, *gradation*, or *regularity*, to be shaded, so to speak, to an ideal pause before it passes into another. Combined with this difference there was mentioned also a possible difference in pitch, one tone be-

ing made higher or lower, as related to the musical scale, than another tone; and a possible difference in quality, one tone being articulated, vocalized, or, as we say, colored as another is not.

The truth of these statements will be recognized upon reading the following. Elocutionists are accustomed to say that, in doing so, one should pause at the ends of the lines and at other places, some of which are indicated by the vertical bars. But notice that, when the verses are well read, there are seldom anywhere any real cessations of sound; also that, in passing from one syllable to another, there is always a difference in accent or intensity, as well as, frequently, differences in pitch and quality or tone-color.

Who would be
A mermaid fair,
    Singing alone,
Curling her hair
Under the sea,
In a golden curl
With a comb of pearl,
    On a throne?

I / would be / a mermaid / fair.
I would sing / to myself / the whole / of the day;
With a comb / of pearl / I would comb / my hair;
And still / as I combed / I would sing / and say,
"Who is it loves me? who loves not me?"

The Mermaid: Tennyson.

In the realm of sight vacancies, and, in the arts of sight, strongly marked outlines that separate one part of the whole extension or space from other parts, giving it thus what we term shape, correspond to pauses in the arts of sound. But shape is indicated not only by these outlines at the top, sides, or bottom of an object or parts of an object;

but often also by the accent given to the outlines through the shading of them; and it is always indicated by this when it is necessary to show the shape of a surface that is facing us, as whether it be concave or convex, or whether its texture be fine or coarse, smooth or rough. In drawing and painting, shading is generally produced through using lines or masses in black or in color, which, for this purpose, are either abruptly or gradually, lessened in number or intensity (see Fig. 16). In sculpture and architecture the same effect is produced as a natural result of a projection or depression of surfaces, which brings certain

FIG. 16.—LIGHT AND SHADE. W. CRANE.
See pages 18, 41, 44, 46, 294, 307.

parts into the light and sends others into the shade. See Figs. 12–15 in the last chapter. The connection between outlining and shading is, therefore, very close, and evidently the effect indicated by the former word, as ordinarily used, includes the conceptions suggested by both. An object may be outlined either by an actual line separating its sides from other objects, or by the shading which, with or without actual lines, is so disposed as to indicate the character of the surface or texture. Notice, too, that the word outline, as thus used, may refer either to a narrow pencil-line, as in drawing, or to a much broader brush-line, as in painting, or to a very broad protuberance or string-course, even to a column or entablature, as in sculpture or architecture.

Taking the term outlines in this general sense, as factors entering into the appearances of art, which, as appearances, no matter how caused, are representative, three general ways, as stated on page 15, may be recognized in which the touch or handling, producing these outlines, may differ, namely in *strength*, in *gradation*, and in *regularity*. In the first place, just as force when applied to sounds may be loud or soft, so the effects of touch may be heavy or light, coarse or fine; and may thus represent, as indicated on page 19 the greater or lesser degrees of mental energy or strength expended by the artist, or of material energy or strength attributable to the appearance which is reproduced.

Fortunately, in a place where one could not satisfactorily introduce illustrations containing color, it has been found possible to obtain sketches which, without possessing color, can illustrate this statement. They are all the more satisfactory, too, inasmuch as they were intended by the artist who drew them to illustrate not this subject, but another to which reference will be made later.

FIG. 17.—LINES EXPRESSIVE OF STORM. W. CRANE.

See pages 13, 41, 66, 72, 259.

Compare Fig. 17, page 43 with Fig 18, page 45. Is it not a fact that the heavier and coarser lines characterizing the first of these, give one an entirely different conception of the degree of mental energy exerted by the artist, than do the lighter and finer lines characterizing the second? From the first we receive an impression of strength; from the second, an impression of delicacy. Were the two produced by different artists, and were these the only specimens of their work that we had seen, we might be justified in saying that the style of the one was characterized by strength, and the style of the other by delicacy, and we might infer that the difference in their styles was owing to a difference in their mental characteristics. But notice, now, that there is a reason outside of the mind of the artist for the manifestation of energy in the one sketch, and of a lack of energy in the other. He has been true to the conditions that inspired him. He has shown mental energy in the first drawing because nature itself had shown him energy in the appearance which he was to reproduce. These heavy lines are representative not merely of his own moods, but of these as excited by what he has seen, and with which therefore his moods are in sympathy. Nothing, so well as such lines, could manifest the impetuous fury of the storm, the violent swaying of the trees, or the resisting strength of these and of the rocks. Nor could anything, so well as the delicate lines, represent the restful gentleness of the other scene, the trees of which look as if unable to stand the slightest blow, and the shores of which seem ready to yield to the feeblest flood.

Again contrast Fig. 16 page 41 with Fig. 167 page 293, and observe how, even aside from other causes contributing to the effect, the lines in the latter figure, though only

45

FIG. 18.—LINES EXPRESSIVE OF REPOSE. W. CRANE.

See pages, 18, 44, 70, 73, 90, 92, 95, 259.

slightly stronger, make it representative of mental energy in a sense not quite so true of the former; and, as related to the representation of natural appearances, observe in Fig. 16 the comparatively fine lines or the lack of lines used in delineating the texture of the marble and of the flowers; and observe in Fig. 167, page 293, the same kinds of lines used in delineating the sky, as well as the boy's flesh and garments. Is it not a fact that these differences in the shading or strength of lines, in such cases, can be rightly termed representative both of mental and material conditions?

Of course, the same general principles must apply to lines produced through the use of color also. "By a few strokes," says Reynolds, in his eleventh "Discourse on Painting," "Titian knew how to mark the general image and character of whatever object he attempted; and produced, by this alone, a truer representation than his master, Giovanni Bellini, or any of his predecessors who finished every hair." In a passage, too, which, as indicated by the italics here introduced, might be quoted in confirmation of the theory presented in this book, because undoubtedly referring at times to the representation of mind, and at other times to the representation of material nature, Charles Blanc says, in his "Grammar of Painting and Engraving," translated by R. N. Doggett, "touch is the handwriting of the painter, the stroke of his *mind*. . . . Leonardo da Vinci treated all his pictures with equal touch, smooth and melting. Titian himself made little difference, and only in the 'Peter Martyr' and 'The Assumption' he seems *led by his subject* to accents more animated, more marked than usual. . . . Poussin, painting 'Pyrrhus Saved' or the 'Rape of the Sabines' [Fig. 36, page 75], treats his painting with a manly hand

and intentional rudeness, while he guides the pencil with more gentleness when he represents 'Rebecca' and her companions. Rubens *expresses his feelings* with *more energy* than ever when he puts on the stage the peasants of the 'Kermesse' or the furious, breathless hunters of the 'Wild Boar.' . . . Michael Angelo executed with extreme delicacy the grand 'Prophets' of the Sistine Chapel and the terrible figures of the 'Last Judgment'; but it is an example not to be imitated . . . Touch ought to be varied . . . according to the *character of the objects*. . . . Look at one of Greuze's young girls, weeping over a broken picture or a dead bird; beside the fine, delicate, transparent, satiny flesh, the chemise is rendered by a pencil that does not give even the idea of lines, or give an idea so gross as to shock. . . . Teniers, on the contrary, admirably accommodates his touch to the *physiognomy of each object*. Without the least difficulty, and as if in sport, he recognizes and characterizes the flesh tints; here the fresh, thin skin of a young farm girl, there the rough skin of an old fiddler. . . . But outside of these conventionalities which require that the handling of

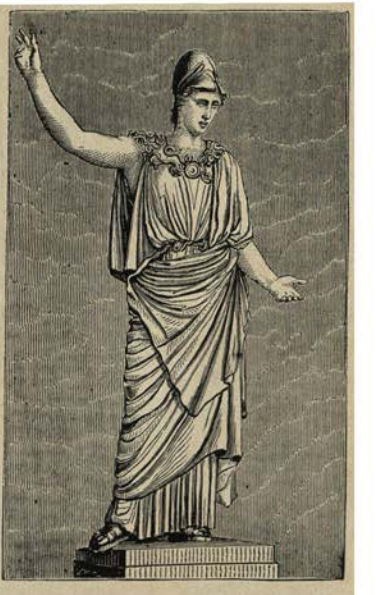


FIG. 19.—PALLAS OF VELLETRI: LOUVRE, PARIS.

See pages 49, 76, 281.

the pencil should be varied, the touch of the painter will always be good if it is natural, that is, *according to his heart*. Ribera is coarse, but his coarseness does not displease, because it is sincere. Rembrandt has a mysterious palette, because he has a genius dreamy and profound. Velasquez is frank, because his pencil is guided by the muse of truth. The touch of Poussin is like his character, noble and expressively simple. Rubens handled the brush with the nerve and warmth that animated him. . . . Prud'hon, amorous and sad poet, chose a soft, sweet execution that lulled lines to sleep, tranquillized shadows, and let nature appear only through a veil of love and poetry."

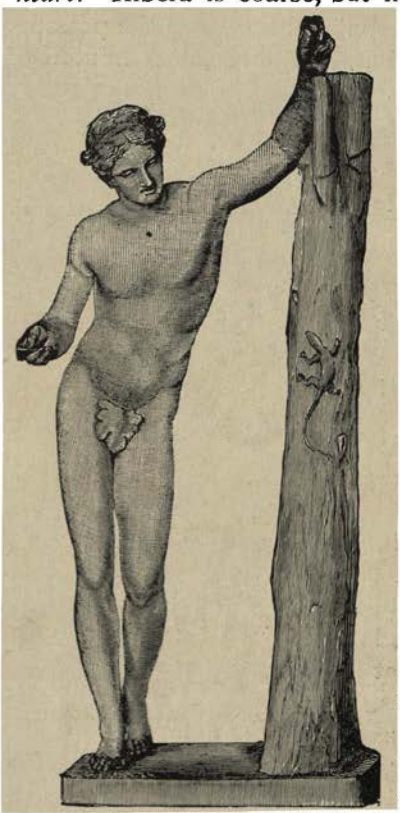


FIG. 20.—APOLLO (SAUROCTONOS). PRAXITELES: VATICAN.

See pages 49, 61, 76, 136, 223, 281.

The same differences between the representative effects of strength in outline are perceptible in sculpture also. It is not only the distinction between a statue's being clothed and being unclothed that causes the energetic, firm dignity of effect produced by the many strong lines

in Fig. 19, page 47, and the yielding and graceful, but comparatively weak effect, so far as concerns character, produced by the smooth surfaces of Fig. 20, page 48. The

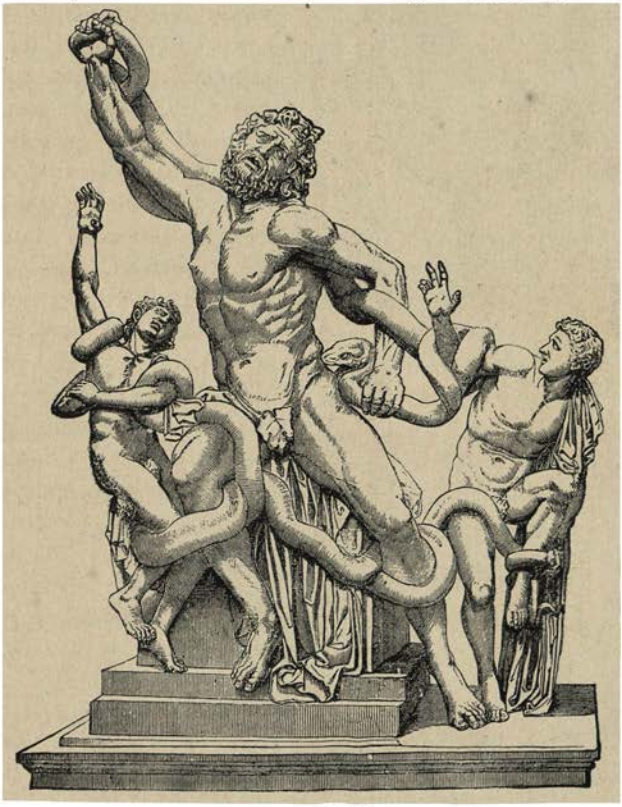


FIG. 21.—THE LAOCOÖN GROUP.
See pages 49, 77, 174, 223, 281, 284, 285.

forms in the Laocoön, Fig. 21, page 49, are not clothed; but notice the feeling of energy and strength conveyed by the way in which the serpent and the human limbs are

projected from the deep shadows which the arrangement of them necessitates. The same is true of Michael Angelo's statue of "Giuliano de' Medici, with Figures of Night and Day" (Fig. 170, page 301). Notice in this that not only the arrangement of the limbs but of all the surfaces is designed to bring out strongly contrasting effects

FIG. 22.—GROUP FROM MAUSOLEUM OF MARIA CHRISTINA. CANOVA AT VIENNA.
See pages 50, 73, 263, 286.

of light and shade. So, too, compare the strong, energetic effect of the high relief in Fig. 22, page 50, with the somewhat less strong effect in the lower relief in Fig. 23, page 51, and the weak effect where there is no relief at all, as in Fig. 5, page 27. As Barry, in the fifth of the "Lectures by the Royal Academicians," says, with reference to this art: "In groups and figures in the round,

the masses of light and shade, or, in other words, the agreeable or majestic effect of the work in all its possible views, cannot be too much attended to. The taste of lines and harmonious flow of the parts or several members of the work, whether a group or a single figure, their variety and their combined unity, are the efficient causes of that light and shade which give ease and satisfaction to the eye of the spectator, and engage him, as it were, to

FIG. 23.—THE SOLDIER'S RETURN.
(FROM THE NATIONAL MONUMENT NEAR BINGEN, GERMANY.)
See pages 50, 286, 302.

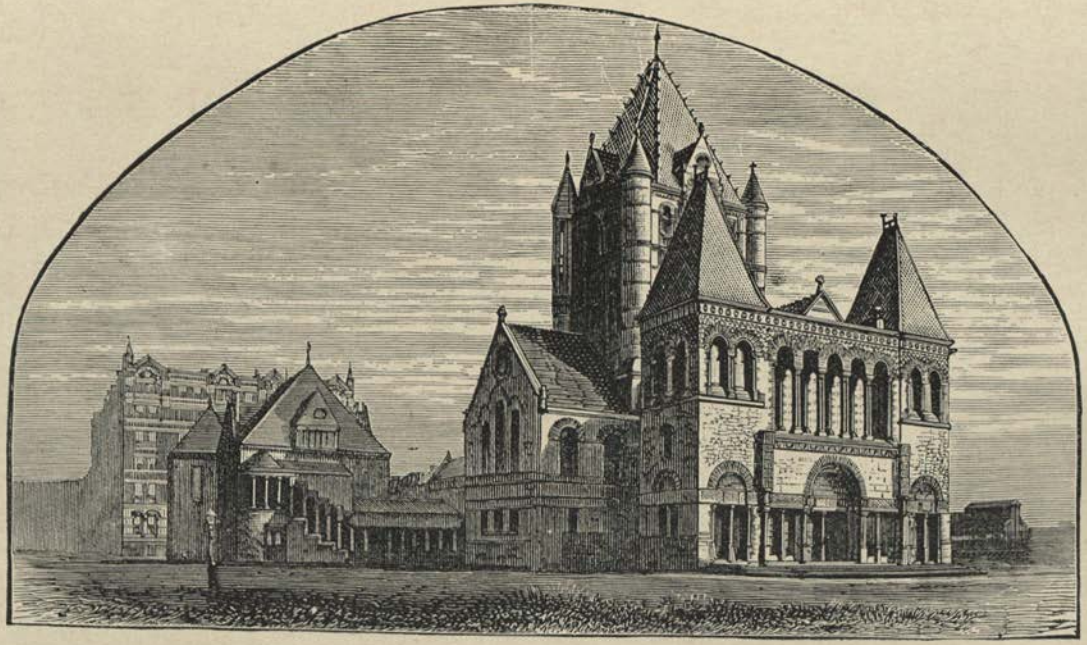
enter into the contemplation of those still more essential beauties of a higher order, which result from the sublime conception of the form and character and the graceful or pathetic expression of the subject . . . high and low rilievo, perspectively sinking into a proper intaglio, is . . . capable of producing the sublimest and most wonderful effects in sculpture."

The same is true as applied to architecture; and here, as is always the case in this art, by way mainly of associa-

tion. Any one at all sensitive to æsthetic effects, will feel, almost at a first glance, the impression of strength conveyed by the pillars of the Greek temples, as in Fig. 14, page 36, or by the pilasters of the Renaissance buildings, as in Fig. 196, page 349; or by the buttresses of the Gothic cathedrals, as in Fig. 41, page 81; or by any arrange-

FIG. 24.—OLD SOUTH CHURCH, BOSTON.
See pages 35, 54, 84, 331, 380.

ments, perpendicular or vertical, that add to the possibilities and presence of shadows, as in Fig. 12, page 35, Fig. 13, page 36, or Fig. 15, page 37. He will feel, too, the impression of a certain amount of structural weakness conveyed by plain walls, such as appear in Fig. 173, page



53

FIG. 25.—TRINITY CHURCH, BOSTON.

See pages 35, 54, 84, 323, 334, 380.

319, Fig. 185, page 338, and in Fig. 190, page 343. A favorable opportunity for observing the difference between these two effects happens to be afforded in Boston by two buildings visible from the same square, namely, Trinity Church, Fig. 25, page 53, and the old South Church, Fig. 24, page 52. The masonry of both may be equally strong, but in Trinity Church the heavy projections—especially the pillars over the front door that necessitate foundation-walls broad enough to support both them and the wall back of them, as well as the attendant shadows in other parts of the building—suggest that nothing short of an earthquake could cause its sides to tumble, while, apparently, a single conflagration might entirely prostrate those of the other church. See also what is said on page 331.

"As the great poem and the great picture," says Ruskin, in his "Seven Lamps of Architecture," "generally affect us most by the majesty of their masses of light and shade, and cannot take hold of us if they affect a continuance of lyric sprightliness, but must be serious often and sometimes melancholy, else they do not express the truth, . . . I do not believe that ever any building was truly great unless it had mighty masses, vigorous and deep, of shadow mingled with its surfaces." But enough has been quoted to show that it is no mere whim of the present writer to attribute to the strength or weakness, firmness or indecision of outlines in connection with their accompanying shadows, a representation of the degrees of mental strength expended by the artist, or of material strength manifested by the factors of which his product is composed.

CHAPTER V.

GRADATION IN THE OUTLINES OF SHAPES, CURVED, ANGULAR, AND BOTH COMBINED.

Meaning and Effect of Gradation as Applied to Outline—Effects of Gradation in the Arts of Sound—Corresponding Effects in the Arts of Sight—Three Methods of Describing the Outlines of a Form—Each Method Representative of both Mental and Material Conditions—How Drawing by the Hand is Representative of Instructive, Reflective, and Emotive Mental Conditions—How the Actions of the Body are Representative of the Same—How Appearances in Nature are Similarly Representative to the Mind of the Spectator—Curvature—Angularity—Straight Lines Horizontality and Effects of Repose—Verticality and Effects of Elevation and Aspiration—Mixed Lines and Effects of Excitation—Illustrations from Landscape Gardening—From Painting and Sculpture—Quotations Confirming these Explanations as Applied to Painting—To Sculpture—Similar Outlines as Used in Architecture—Their Representative Meanings: The Rounded Forms—The Straight Lines and Angles—The Combinations of Both—Recapitulation.

NOW let us notice the differences in the effects of touch or handling produced by what, on page 15, is termed *gradation*. This term is used in art to indicate the relative degrees of change through which, whether gradually or abruptly, a factor of one kind is made to pass into another of a different kind. Sometimes the principle is applied to the arrangements of suggestions introduced into a rhetorical climax; sometimes to the arrangements of light and shade and color; and sometimes to the arrangements of other features. Here, as was shown

to be appropriate on pages 281 to 287 of "The Genesis of Art-Form," the term indicates the relative degrees of change through which outlines moving in one direction are made to pass into those moving in other directions, and, all together, are thus made to inclose a space. The most gradual way of inclosing a space is, of course, through the use of a circle or curve. A way somewhat less gradual, is through a use of straight lines combined with very obtuse angles, as in an octangle. A still less gradual way is through a square or triangle; and, of all triangles, the least gradual is one containing a very acute angle. As will be noticed, there is nothing in this kind of an angle that resembles a circle; but the general effect of an octangle, or of any regular figure with many sides does resemble this. At the same time, the octagon's actual features—straight lines and angles—are the same, differently arranged, as those of the triangle. Once more, it is important to notice that a curve, if long enough, like that encircling the world, for instance, cannot be distinguished from a straight line; nor can the two sides of an angle, if sharp enough, be distinguished from parallel lines. These facts render it possible to say that between the extremes of longest curvature and sharpest angularity, as applied to the inclosure of spaces, there may be included not only all conceivable outlines formed of curves and angles, but also of straight lines when parallel.

The term gradation as thus used to indicate the way in which outlines inclose shapes, is the same as is applied in Chapter VI. of "Poetry as a Representative Art" to a corresponding effect in the arts of sound. This corresponding effect (see page 16 of the present volume) is produced by the blending of tones in elocutionary stress and

of syllables or notes in poetical or musical measures, measures with their accents contributing to the general impression produced by rhythm precisely as do measurements with their shadings to the general impression produced by proportion. Simply because, as a rule, single syllables or notes cannot constitute measures, nor single lines, *i. e.*, lines moving in a single direction, all that is meant by measurements, it is, in the last analysis, the method of gradation through which the syllables, notes, or lines pass into one another, which determines the general effect. In accordance with this statement, the impression conveyed by measures when combined, tends, as indicated on page 17, either toward a running or, as we may term it, a curved effect, as in initial measure termed by the Greeks Trochee, taken from the word τροχός, a wheel, *e. g.*:

We the fairies blithe and antic,
Of dimensions not gigantic;
Though the moonshine mostly keep us,
Oft in orchards frisk and peep us.
—*Fairies' Song: Thomas Randolph.* (*Latin*).
Trans. by Leigh Hunt.

Or toward a pushing, puncturing, effect, as in terminal measure, termed by the Greeks iambic from ἰάπτο, to drive forth, shoot, assail, *e. g.*:

Think not, thou eagle Lord of Rome,
And master of the world,
Though victory's banner o'er thy dome
In triumph now is furled,
I would address thee as thy slave,
But as the bold should greet the brave.
—*Caractacus: Bernard Barton.*

Or toward a combination of both, as in the following, where there is still more of a running or swelling effect, and yet, as on the accented syllables, more also of a pushing or puncturing effect:

> I sprang to the stirrup, and Joris, and he,
> I galloped, Dirk galloped, we galloped all three.
> —*How They Brought the Good News: Browning.*

Corresponding effects in measurements were said to cause lines to describe shapes, gradually, as in curves, abruptly, as in angles, or both gradually and abruptly, as in combinations of the two. Now, in order to ascertain that of which each of these methods is representative, let us observe certain of the conditions determining or accompanying the uses of each.

While doing this, it will not be long before we are led to notice three facts, each applicable to conditions both within the mind, and in the surrounding world outside of it. The first fact is that, as a form is complete in the degree in which it is inclosed upon all sides, the most *instinctive* way—*i. e.*, the way involving least thought—in which to meet the requirements of the form, is to draw outlines describing some sort of a curve, beginning and ending at the same point. Moreover, when we look at nature, we find many objects, like plants, rocks, and hills, the outlines of which can apparently be described in this same general way. The second fact is, that only after we have begun to *reflect* a little upon the possibilities of an appearance do we make its outlines, provided they are to inclose a space, describe many angles. That is to say, using angles thus, necessitates our stopping to think where they shall be. Moreover, an angular form, when completed, seldom resembles closely anything in nature; and it almost

never does this, except as a result of imitation. The third fact is, that still another way of drawing outlines, mainly determined by our feelings or *emotions*, may make them partly curved and partly straight, partly rounded, and partly angular, partly tangent and partly parallel; and, of course, among their possibilities may be included an imitation of any of the appearances of nature, however varied.

Such facts of themselves are enough to suggest that there is a reason why outlines of each of these three kinds should be representative of both mental and material conditions. But that this is so, can be brought out still more clearly. At the same time, too, it can be shown why, as stated on page 19, the difference in the gradations of outlines represents mental energy rather than that physical phase of energy usually represented by the differences in strength or accentuation which have been already considered. We shall find that, in a sense not true of the mere accentuation of outlines, their methods of passing one into another represent, on the one hand, effects which are due to conditions of thought in the mind of the artist, and, on the other hand, effects which appearances, having these outlines, exert upon the conditions of thought in the mind of the spectator.

That the effects are due to conditions in the mind of the artist may be perceived by drawing at *hap-hazard* a large number of long lines describing shapes, and then examining them, and the ways in which they are related to one another. Upon doing this, we shall find, first, that, in the degree in which the lines have been dashed off *instinctively*, *i. e.*, with no reflection, the natural movement of the hand has caused most of them to describe curves; second, that in the degree in which they have been the results of *reflection* they show a decided ten-

dency toward straightness, necessitating, of course, the use of angles; and, third, that in the degree in which they have been the results of a restful, in the sense of a passive *emotive* state, the curves or straight lines are long, the angles few and similar, and the shapes comparatively regular; but in the degree in which they have been the results of restlessness or an excited emotive state, both curves and angles are many and divers, and the whole shapes are comparatively irregular. In fact, as a rule, we can recognize at once, upon glancing at shapes thus drawn, whether a man has made them without thought or with it; or whether his emotions have been in a state of restfulness or of excitement.

FIG. 26.—FIGURE FROM NAUSICA. E. J. POYNTER.
See pages 61, 72, 129, 130, 133.

Now let us take a broader view of the subject, and consider, as related to representation, the action not merely of a man's hand, but of his whole body. We shall find that, in the degree in which his expression is *instinctive*

in the sense of being spontaneous and unconscious, because uninfluenced or unimpeded by conditions that come from without, his gait, postures, and gestures all tend to assume the forms of free, large, graceful curves. See Fig. 26, page 60; also Fig. 20, page 48; Fig. 34, page 71; and Fig. 83, page 144. But in the degree in which his expression is *reflective*, in the sense of being made responsive and calculating in order to meet conditions from without, especially in the degree in which these conditions check, impede, and embarrass him, and make him conscious of this fact, or self-conscious, as we say,—in this degree we shall find that his bearing is stiff, constrained, and awkward, imparting to all his movements a tendency to assume the forms of straight lines and angles. See the woman in Fig. 27, page 61; also the positions in Fig. 39, page 79. Both these extremes are *emotive*, as is all human expression (page 21); but sharp angles and short curves will give way to straighter lines and longer curves

FIG. 27.—PROPOSITION OF MARRIAGE.
D. CHODOWIECK.
See pages 61, 138, 147, 160, 161, 169, 175.

in the degree in which outside conditions do not wholly overcome a man's spontaneity, but cause him to make his instinctive promptings reflective, as in exerting the moral influence of confident assertion, Fig. 28, page 62; or enthusiastic persuasion, Fig. 2, page 21, and Fig. 84, page 145. But angles will predominate in the degree in which he is conscious of interference, as in supposed opposition, whether this be mental, as in Fig. 29, page 63; and more decidedly so, as in Fig. 77 page 135; or material, as in Fig. 30, page 64; and Fig. 58, page 104; or both together, as in the two figures at the front of Fig. 39, page 79; or as in fighting. The latter condition will double up his frame and throw his neck, elbows, knees, and hips into shapes that will make his form the best possible representation of what can be described by only the term angularity; yet from this appearance in such cases, curves are never entirely absent. See Fig. 31, page 65; also Figs. 73 and 74, page 132.

FIG. 28.—THE APOLLO BELVEDERE.
See pages 62, 138, 147, 149, 151, 224, 281.

So much for the meaning of outlines, whether sketched by the hand or assumed by the body. Now let us notice

how, as manifested not in the human form but in the inanimate appearances of nature surrounding it, similar outlines are fitted to represent, and so to awaken, corresponding conceptions in the mind of the spectator. The curve has been ascribed to the *instinctive*, or, as we may term it, the physically normal action of the human form. Is there any truth in the supposition that similar appearances external to man may be ascribed to sources similar in charac-

FIG. 29.—AUTHOR AND CRITICS. H. STACY MARKS, R.A.

See pages 62, 151, 152, 156, 172, 173, 177, 178, 270.

ter? Why should there not be? The eye itself is circular, and the field of vision which it views, at any one moment, always appears to be the same. So does the horizon and the zenith, and so, too, do most of the objects that they contain—the heaving mountain, the rising smoke or vapor, the rolling wave, the gushing fountain, the rippling stream, even the bubbles of its water and the pebbles of its chan-

64 FIG. 30.—LINES ILLUSTRATIVE OF ACTION. W. CRANE.

See pages 62, 72.

nel, and every tree, plant, and animal, whether at rest or in motion. For this reason, curves, wherever seen, necessarily suggest more or less of that which is normal, or, as applied to natural animate life, of that which has the buoyancy, freedom, and joyousness which we instinctively associate with the possession of this. See the forms at the right of Fig. 32, page 67.

The straight line with its accompanying angles we have found to be produced by a man chiefly as a result of the *reflective* action of his mind. How is it with similar effects in the appearances surrounding him? Do not rectangles with their straight, parallel sides (developed from angularity, page 56), as in buildings and in so many other objects made by men, invariably suggest results of construction, and, therefore, of reflection expended upon them? Nor are such suggestions confined to objects with reference to which a man's interference with the normal action of nature is unmistakable. By way of association, the horizontal hilltop, the sharply perpendicular cliff, the pointed peak, cause us to think and often to say that they look precisely as if a man had been at work upon them, levelling or blasting. Few natural objects, indeed, have outlines absolutely straight or angular; but always, in the degree in which they are so, the impression naturally produced by curves, which is that of a growth outward from normal vitality within, is lessened. We feel that life has in some way been literally blasted. As a rule, it is the great convulsions

FIG. 31.—AN ATTACK.

See pages 62, 145, 167, 171.

of nature, whether produced by fire, frost, wind, or earthquake, that leave behind them, if their progress can be traced at all, such results of crystallizing, cracking, and rending, as are manifested in straight lines and angles. Notice these at the left of Fig. 32, page 67. No wonder, therefore, that wherever seen they are associated in our minds with the work of extraneous force acting upon the forms from the outside, as the volcano does when it rends the rocks and throws the lava through and over them, and as the tempest does, when it bends the trees and tears off their branches. Notice, again, Fig. 17, page 43.

Now let us consider the possibilities of *emotive* effects between these two extremes of form (see page 11). When, notwithstanding curves or angles, the general appearance of a shape approximates that of straight, parallel lines, it must be then (see page 65) that the appearance is most suggestive of *reflective* influences. This being so, in the degree in which the lines are long and absolutely straight, they must suggest reflection or thought of the most unchanging as well as distinctive character, as in *persistence*, *seriousness*, or *dignity*. Now notice that these straight lines may tend to be either horizontal or vertical. Does it require any argument to show that, if horizontal, they are suggestive of *persistence*, *seriousness*, or *dignity in repose*, and, if vertical, of the same *in activity?* What is so firmly fixed in position as a long straight beam, lying flat on the ground; and what is so hard to get or even to keep in position as the same placed vertically? It is strictly in accordance with the principle of correspondence, therefore, that the former should represent restfulness, and the latter difficulty overcome by effort, and, if through human agency, by human effort, or by that in the soul which makes the effort possible. For this reason, there-

67

FIG. 32.—TISSINGTON SPIRES, ENGLAND.

See pages 65, 66, 70, 72, 259, 399.

fore, as well as because, by pointing upward, it carries the thought upward (which is the ordinary way of explaining the effect), the vertical line may be said to represent *aspiration* and *elevation of aim.* Of course, too, because composed of lines very nearly vertical, sharp angles pointing upward, as in Gothic window-caps and spires, represent the same. Observe, too, how in this architectural style the parallelism of the vertical lines repeats and emphasizes the emotive effect due to their directions, and augments it by regularity. See page 74 and Chap. VI.

Curves and angles, when their lines are greatly broken, suggest the changing and transient, and also, when crossed, the complex. Because complex, they are perplexing; and provided they are nevertheless disposed in such ways as to render the fact of some design indisputable, they are exciting, as far as lines can be so, to the imagination, constantly stimualting it, as they do, to solve the mystery of their mode of arrangement. Such being their effects, one would expect to find the natural forms characterized by them proving more exciting to the emotions than those already considered. And when we examine the appearances about us, is not this exactly what we do find? Is it not when complicated curves and angles outline natural trifles that they fascinate and make men imitate them in their curios? Is it not when curves, straight lines and angles join in natural forms of grander import, when the tree and bush are wreathed about the precipice, when the dome-like mountain and the rolling cloud lift above the sharp peak and cloven crag, and far below them lies the flat plain or lake,—is it not then, in connection with such combinations, that the most exciting appeal is made through the emotions to the imagination?

That the facts are as here suggested, will be evident to any one who will make a careful study of the subtle effects

FIG. 33.—REPOSE IN LANDSCAPE AND FIGURE. W. CRANE.

See pages 70, 73, 90, 92, 259.

upon the mind of different scenes in nature, and of the imitations of them in art. Indeed, a slight indication of what is meant may be observed in Fig. 32, page 67. In this place a good way, perhaps, of discovering the representative capabilities of these different appearances, is to recall the use that is made of them by the landscape gardener. Is it not a fact that, in case he desire to direct attention to the beauty of nature in itself, *i. e.*, to the capabilities of nature with the least possible suggestion of the intervention of a human mind,—that in this case his plans will develop into gradually rising mounds and circuitous drives, winding among trees and shrubs planted in clusters but not in rows? On the contrary, if he desire to produce a distinctly different impression, causing thought to revert from nature to man, either to the artist who has arranged things as they are, or to the resident or visitor for whose convenience or guidance they have been so arranged, then will he not plan for distinctly different effects, as in the long avenue bordered with its rows of trees, or in the terrace, or the hedge, or the flower garden with straight and rectangular pathways? Or, once more, if he desire to produce more emotional impressions by means of which the observer may be drawn more into sympathy with his designs and the ingenuity of them, will he not make more use of variety and contrast, combining the winding walks of the ramble with sharp angles, perpendicular rocks with rounded moss banks, or shooting cataracts with still pools?

Is it strange that similar principles should apply to painting and sculpture? Notice, again, the effect of the gentle curves in Fig. 18, page 45, and at the right of Fig. 32, page 67. Notice, too, those in Fig. 33, page 69. How clearly indicative they are of an internal, spon-

FIG. 34.—THE AURORA BY GUIDO.

See pages 61, 72, 136, 265, 272.

taneous, normal development of natural formation! Observe, also, the allied instinctive human expression of the same in the buoyancy, freedom, and joyousness expressed by the curves in Fig. 26, page 60, also in Fig. 34, page 71. Now recall the results of extraneous ab-

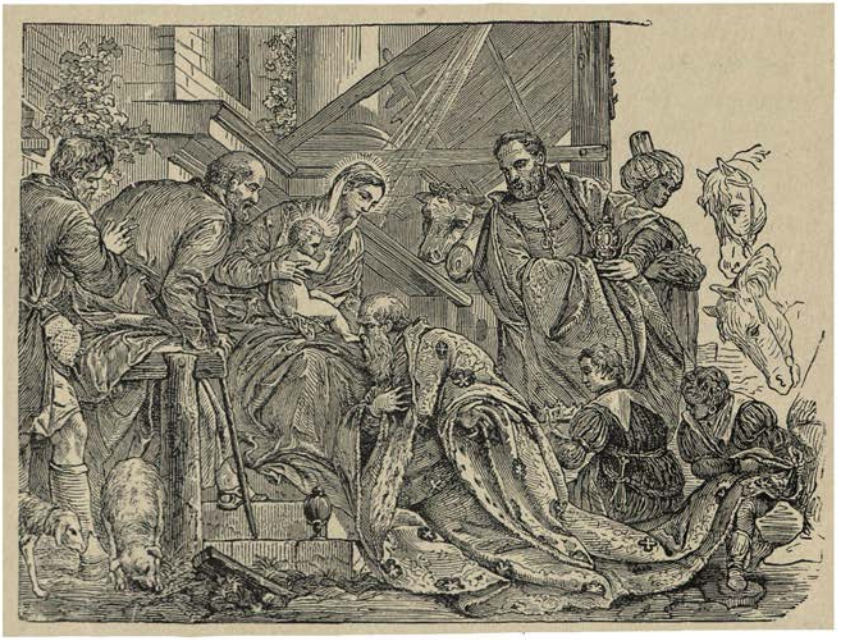


FIG. 35.—ADORATION OF THE MAGI. P. VERONESI.
See pages 73, 174, 263, 276.

normal influences, first, as exerted by natural forces, as in Fig. 17, page 43, and at the left of Fig. 32, page 67; and, second, as exerted by the allied reflective agency of man, as in Fig. 30, page 64. Once more, look at the effects of repose as suggested, first, by the horizontality of the

arrangements of natural scenery in Fig. 18, page 45, and, second, with more reflective design, by the human figure in connection with scenery, as in Fig. 33, page 69. Contrast with this the aspiration expressed by the verticality of the lines in Fig. 9, page 33; and, owing to the non-natural arrangement in a regular row, the more humanly thoughtful and reflective suggestion of the same in Fig. 44, page 85. Notice, too, the same impression as clearly conveyed by the whole form in Fig. 2, page 21, and more subtly conveyed by the extended limb of the angel in Fig. 22, page 50. Finally, observe, in connection with the many curves which impart a suggestion of instinctive freedom to the mode of expression, the same reflective and hence serious, dignified, aspiration suggested by the upward lines in Fig. 35, page 72. The united effects in it of curves and long upward lines, make it a fine illustration of that blending of the instinctive and reflective tendencies which, on page 11, was said to be the condition of emotive expression.

Though differently explained, the effects of these forms have usually been recognized to be as thus stated. Charles Blanc, for instance, in his "Grammar of Painting and Engraving," translated by R. N. Doggett, says: "In the choice of the great lines, a certain character should be dominant. . . . Straight or curved, horizontal or vertical, parallel or divergent, all the lines have a secret relation to the sentiment." John Ruskin, too, recalling several instances in which prominent features of certain of Turner's pictures are arranged along a framework of curved lines, speaks of these as being the ones most frequently found in nature; and in "Winkleman's Ancient Art," he says that as they "are more beautiful than straight lines, it is necessary"—too strong a word to use except

when making an application to landscape—"to a good composition that its continuities of object mass or color should be, if possible, in curves rather than in straight lines or angular ones." "In the spectacles of the world," says Charles Blanc in the work just quoted, "as in the human figure, in painting, or in architecture, the straight lines correspond to a sentiment of austerity and force, and give to a composition in which they are repeated, a grave, imposing, rigid aspect." This is the same, of course, as to say that these lines, together with the angles that necessarily accompany them, represent not the free, buoyant, joyous conceptions conveyed by curves, but constrained, grave, and serious conceptions. In connection with this, the same writer indicates the representative suggestions of the two general directions in which these lines, when emphasized by the repetitions of parallelism, may point. "The horizontals," he says, "which express in nature the calmness of the sea, the majesty of the far-off horizon, the vegetal tranquillity of the strong resisting trees, the quietude of the globe after the catastrophes that have upheaved it, motiveless, eternal duration—the horizontals in painting express analogous sentiments, the same character of eternal repose, of peace, of duration. . . . Witness the 'Testament of Eudamidas'; in it, Poussin has repeated the horizontal lines. Lying upon his death-bed the citizen of Corinth forms the dominant line of the arrangement. The lance of the hero repeats this line, and, prostrate like him, seems condemned to the repose of his master, and to affirm a second time his death." Again referring to the vertical lines, he says: "Look now at 'The Life of Saint Bruno,' by Lesueur. . . . The solemnity of the religious sentiment, which is an ascending aspiration, is expressed in it by the dominant repetition

and parallelism of the verticals; and this parallelism, which would be only monotony if the painter had had other personages to put upon the canvas, becomes an expressive repetition when it is necessary to render apparent the respect and uniformity of the monastic rule, the silence, meditation, renunciation of the cloister." Once more, in language applying accurately to only what we have here termed mixed lines, consisting of both curves and angles

FIG. 36.—THE RAPE OF THE SABINES. N. POUSSIN.
See pages 46, 75, 87.

though often angularity alone is attributed to them, he says: "If it be necessary to represent a terrible idea,—for instance that of the last judgment, . . . such subjects demand lines vehement, impetuous, and moving. Michael Angelo covers the wall of the Sistine chapel with contrasting and flamboyant lines. Poussin torments and twists his in the pictures of 'Pyrrhus Saved' and 'The Sabines' (Fig. 36, page 75), and the linear modes employed

by these masters are examples of the law to be followed, that of bringing back with decision to their dominant character the whole of the great lines, that is to say, the first means of expression, arrangement."

"In the ancient Greek sculptures," says Long in his "Art, its Laws, and the Reasons for Them," "a correspondence between the disposition of the figure and the sentiment of the subject will always be found. . . . Minerva's position being perpendicular and her drapery descending in long uninterrupted lines [Fig. 37, page 76, also Fig. 19, page 47], while a thousand amorous curves embrace the limbs of Flora and Venus [see Figs. 38, page 77; 20, page 48; and 149, page 224], the plain, the simple, the dignified, and the intellectual being the sentiment of the one; the light, the gay, and the sensual the sentiment of the other. And if the sentiment which animates them be of a very exciting and passionate character, the movements become more quick and the forms more angularized"—a statement which, as will be made clear in a moment, includes, as this word usually does when thus used, more than the mere idea of angles. "It is in obedience to this principle," he goes

FIG. 37.—ATHENA OF THE CAPITOL.
See pages 76, 224, 281.

on to say, "that Raphael acted when, in his cartoon of 'The Delivery of the Keys to St. Peter,' he employed, as did the sculptor of Minerva, the influence of *simple* forms," *i. e.*, simple as distinguished from mixed, "to express and produce the sentiment of the character introduced and the natural effects of that scene; and the same too in the Ananias (see Fig. 39, page 79) among the figures distributing and receiving alms, whilst, in obedience to this rule, he has resorted to the adverse system of angular forms and abrupt contrasts," *i. e.*, to mixed lines, curved and straight, "to portray distress and convulsion in the dying man, and astonishment and dismay in the figures that immediately surround him." So, too, an application of the same general principles is made in these words of an unnamed writer quoted by Barry in the "Lectures of the Royal Academicians": "In the Laocoön [Fig. 21, page 49], the convex lines predominate and the forms are angular, as well where they indent or fall in as where they swell out, by which means the agitation of the expression is manifested."

FIG. 28.—VENUS DE' MEDICI.
See pages 76, 138, 142, 223, 225, 281.

Simple imitation, even aside from any desire to represent, will usually cause a close observer to regard

these principles when depicting natural scenery or human figures; but they are equally applicable when constructing buildings. The most ordinarily accepted classification made of the different styles of these is according to their bridging of openings or spaces by straight lines, curves, or angles, which three methods are supposed to indicate the differences between the architecture of the Greek horizontal entablature, of the Byzantine or Romanesque round arch, and of the Gothic pointed arch.[1] But notice that straight lines abound in all these forms, the horizontal ones in Greek architecture being no more prominent than the vertical ones in Gothic architecture. It is well to observe, too, that of all architecture appealing to the emotions the latter does this in the most powerfully effective way, for the reason not often noticed that in it alone is it customary to blend all the possibilities of outline. Sometimes there are no prominent curves in Greek buildings, see Fig. 14, page 36. Sometimes, too, there are no sharp forms in Byzantine or the allied Romanesque buildings. See Fig. 40, page 80, also Fig. 15, page 37. But in Gothic buildings there is invariably a blending of both. Moreover, as if also to emphasize the existence of both, each form is developed to excess, the curves being made particularly round and the angles particularly sharp. See Fig. 41, page 81, also Fig. 220, page 392.

Now what is the architectural significance of a predominance of each of these methods of bringing outlines together, namely, through curves, through angles, or through both in combination? Is this difficult to determine? To begin with, what is the shape most instinctively produced by the creatures below man, when they indulge in con-

[1] See note at bottom of page 378.

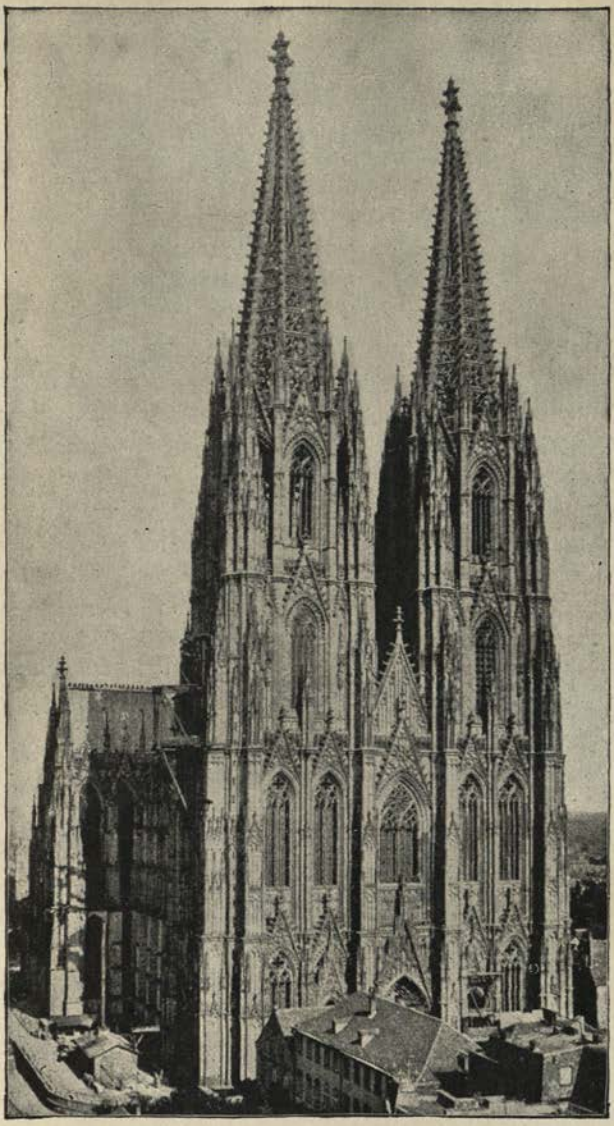
79 FIG. 39.—THE DEATH OF ANANIAS. CARTOON BY RAPHAEL.

See pages 61, 62, 77, 137, 140, 145, 147, 156, 158, 161, 167, 170, 177, 178, 226, 287.

struction? What is the shape of ant-hills, birds' nests, or beavers' dams? What is the shape of that which a man constructs in the forest when he breaks off the limbs of the trees, and, binding them together, builds himself something in which to sleep? Rounded, curved, is it not? The huts represented in Chapter XX. of this book are all symmetrical, and so would be recognized at once as products of man; but which of them should we be most

FIG. 40.—OLD PICTURE OF ST. SOPHIA, CONSTANTINOPLE.
See pages 78 82, 86, 380.

likely to imagine to have been constructed by some more intelligent animal? Would it not be those in Fig. 212 page 379. And which should we first recognize as the products of a man? Would it not be those in Fig. 208, page 374, and Fig. 214, page 383, and this because of the use made in them of straight lines and angles? The same principle holds good with reference to buildings of a more elaborate character; though it must not be overlooked that, in the degree in which any forms are artificially elaborated they come to



81 FIG. 41.—COLOGNE CATHEDRAL—FAÇADE.

See pages 35, 52, 78, 82, 84, 86, 323, 380, 405.

have complex and therefore (see page 11) stronger emotive effects. But, as applied to the predominating or germinal shapes in such buildings, is it not true that the impression conveyed by any rounded arch, as in a bridge for instance, is that the small stones available have been made to span the space under it in accordance with a natural law which needs only to be perceived by the builder in order to be instinctively fulfilled by him? And if this be so, is it not logical to infer that all such forms can cause one to associate their appearance with a fulfilment of natural law? Do not their curved outlines make Figs. 40, 43, and even 41 look as if, according to natural law, they *grew* into shape in a sense not true of Fig. 42? Possibly, therefore, there is a reason why rounded doorways, as in Fig. 15, page 37, and bending domes, as in Fig. 12, page 35, should have seemed to so many in so many different lands appropriate to represent not only, as stated on page 38, a place in which crowds are expected to gather, but also a centre from which emanates the authority of law, either civil, as from a state capitol or courthouse, or spiritual, as from a cathedral.

Again when as in Fig. 42 we find buildings showing no such desire to accommodate the methods of construction to the requirements of natural law, as is apparent in the round arch, but rather a determination, on the part of a man, to erect something designed by himself without any special regard for these requirements, as is the case wherever we see a predominance of straight lines and angles, then is it not true, as indicated on page 65, that the impression mainly conveyed is that of a form due to human reflection? Moreover, if, in connection with this general impression, the predominating lines be horizontal, and the angles flat, so as to produce, so far as angles can, an effect of horizontality, is it not true that, combined with the seriousness

FIG. 42.—THE RUSSIAN CHURCH AT PARIS.

See pages 82, 84. 86, 323.

and dignity suggested by straight lines, they represent repose? Notice the general effect of the horizontal entablatures, window-caps or string-courses in Fig. 14, page 36, Fig. 192, page 345; Fig. 197, page 350, Fig. 198, page 351, and Fig. 203, page 365. If, on the contrary, the predominating lines be vertical, and the angles, by being sharp, aid the effect of verticality, is it not true that, combined with the seriousness and dignity suggested by straight lines, they represent elevation of soul or aspiration? See Figs. 24, page 52; 25, page 53; 41, page 81; 42, page 83; and 43, page 84. Observe also what a close resemblance there is between the general effect of the trees in Fig. 44, page 85, and of the columns and ceiling in Fig. 43, page 84.

FIG. 43.—INTERIOR OF BEVERLEY MINSTER, ENGLAND.

See pages 32, 82, 84, 380, 388, 399, 405.

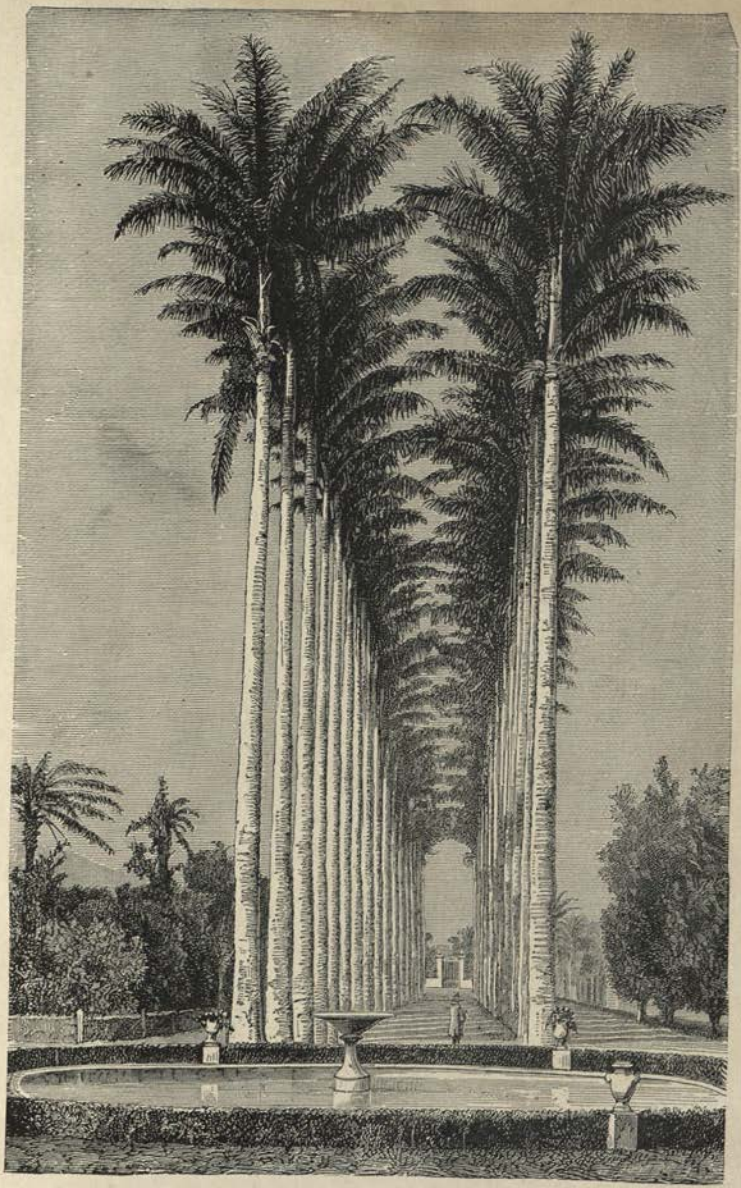


FIG. 44.—AVENUE OF PALMS AT RIO DE JANEIRO.

See pages 32, 73 84, 399, 403.

Once more, when we look at buildings in which the curves as well as straight lines are prominent, as in Fig. 43, page 84; or in which curves, straight lines and angles, all three, are prominent, as in Fig. 41, page 81 (notice the long curve from base to spire in its general contour), can we not perceive a more æsthetic emotive effect than in a building in which, as in Fig. 42, page 83, the curves are greatly subordinated? And in buildings in which either curves, angles, or straight lines are combined in excess of what are needed, as is often the case in both Greek and Gothic architecture, where columns, entablatures, or arches, are introduced and are all shaped alike evidently for the purpose of ornament alone, and to enhance, by way of correspondence, the appearance of artistic unity, then is it not true that the forms represent a special appeal to the æsthetic emotions? See Figs. 14, page 36; 15, page 37; 40, page 80; and 41 page 81. Does not Ruskin in the following, taken from his "Lectures on Architecture and Painting," refer to an effect which we feel to be ascribable to all such forms of architecture, but especially, perhaps for reason given on page 78, to the Gothic? "I do not speak," he says, "of your scenery. I do not ask you how much you feel that it owes to the grey battlements that frown through the woods of Craig Millar, to the pointed turrets that flank the front of Holyrood, or to the massy keeps of your Crichtown and Boothwick and other border towns, but look merely through your poetry and romances; take away out of your border ballads the word tower whenever it occurs, and the ideas connected with it, and what will become of the ballads? See how Sir Walter Scott cannot even get through a description of Highland scenery without helps from the idea:

'Each purple peak, each flinty spire.'

That strange and thrilling interest with which such words strike you as are in any wise connected with Gothic architecture, as for instance, vault, arch, spire, pinnacle, battlement, porch, and myriads of such others—words everlastingly poetical and powerful wherever they occur—is a most true and certain index that the things themselves are delightful to you, and will ever continue to be so."

In this chapter, examining the two methods through which a line moving in one direction is made to pass into another direction, we have found that the continuity of the curve suggests the physically instinctive, natural, or normal, the result of unconstrained expression in man, or of unresisted growth in nature; and that the straight line bent into an angle suggests the mentally reflective, artificial, or non-normal, the result of enforced contrivance in man or of external force in nature; while both methods mixed suggest an emotive influence exerted or experienced. This influence seems greatest in the degree in which the mixture is greatest, and may indicate, according to the character of the forms represented, either physical excitation, as in Fig. 36, page 75; or fanciful, as in complicated ornamentation. In the degree in which the mixture is least, and the forms are most nearly simple, the emotive excitation seems least, inclining toward the instinctive and natural, if manifested chiefly in long uninvolved curves, and toward the reflective and rational, if chiefly in straight lines and angles (see page 66). Closely corresponding to these respective emotive effects, are those that will be noticed in the chapter following, though it must not be thought that either mixture or curvature is necessarily irregular, or that either simplicity or straightness with angles is necessarily the opposite.

CHAPTER VI.

REGULARITY IN OUTLINES: RADIATION, PARALLELISM, CIRCLES, AND OVALS.

Regularity as Applied to Sizes and Shapes—Frame work of Lines on which Art-Products are Constructed—How this Accords with the Requirements of Nature in General, as in Radiation or Central-Point—As in Setting—As in Parallelism—Also with the Requirements of Individual Objects in Nature—This Framework Accords with the Requirements of both Mental Conception and Material Appearance—Significance of Regularity and Irregularity in Representations of the Mind—Of External Natural Phenomena—Blending of Regularity and Irregularity in the Human Form and Face—As judged by an Ideal Framework—Its Vertical Lines—Its Horizontal Lines—Facial Regularity does not Involve Sameness—Slight Departures from it not Inconsistent with a Degree of Beauty—Great Departures Allowable for the Sake of Expression or Contrast—Necessity of Considering Differences and Deviations in Regularity Especially as Manifested in the Innate and Assumed Appearances of Men.

THE significance of the gradations of curvature or angularity through which outlines are made to describe shapes, cannot be fully understood except in connection with the third way in which they have been said to be made representative, namely, *regularity*. This is a result, primarily, of like effects produced by measurements, just as in poetry and music it is a result of like effects produced by measures. As outlines limit both extent and shape, these like effects may be produced by resemblances either in the one or in the other. For instance, if, in a door, a square panel alternate with a circular one,

and the opposite sides of the square be the same distance apart as those of the circle, *i. e.*, if the diameters of both figures have the same measurements, then men consider this arrangement an illustration of regularity, though the likeness is in the width of spaces not in the shapes occupying them; or, if in a human face there be the same distance or measurement between the hair of the forehead and the eyes, and between the eyes and the nostrils, and between the nostrils and the chin, men say that the features, so far as this fact can make them so, are regular, though there is likeness only in heights not in shapes. But the term is applied sometimes to shapes alone. When each part of a curve or angle, as in an arch, bears the same relations to the whole, that each corresponding part of another curve or angle bears to another whole, which nevertheless occupies less space; or when one part of a curve or an angle is like another part of the same curve or angle, as is sometimes the case with the curve over the eyebrows; or is related in the same way to some third feature, as the eyebrows are to the nose,—in these cases, too, because the mere shapes are alike, there is said to be regularity.

As manifested in the arts of sight, this characteristic is as important to the general effects of proportion as it is in the arts of sound to the general effects of rhythm. For this reason the art-forms of paintings and statues, as well as of buildings, are usually constructed on a framework of lines. These lines, first of all, divide up the whole space to be covered into equal parts. Afterwards, upon the lines or between them, are arranged the prominent shapes such as the branches, sides, or tops of the same or of different trees, the ridges or edges of the same or of different hills or clouds, the banks or channels of the same

or of different streams, and the limbs or other members of the same or of different men or animals. The effects of such lines are clearly traceable in Figs. 18, page 45, and 33, page 69; and they may be seen actually drawn in Figs. 46, page 96; 47, page 97; 48, page 97; and 49, page 98. The simplest and most convenient form for this kind of a framework consists, of course, of parallel lines that are horizontal or vertical; but men often use, too, curves and angles. Curved outlines are most regular when they form a circle, and, whether they do this or not, they are usually described about lines radiating from a centre. See Figs. 46 page 96; and 48, page 97. Angular outlines are most regular when they form a square, but they often necessitate diagonal straight lines as in Fig. 49 page 98, and as would be the case in a framework prepared for the left lower picture in Fig. 45, page 93.

Before going on, it will correspond with what has been done throughout this volume, to point out that this framework thus constructed for the purposes of art accords with the physical conditions underlying all sight, and, therefore, with the suggestions if not requirements of nature.

For reasons given on page 63, these suggestions must be manifested in nature mainly, though not exclusively, through the use of curves. Let us first consider here, therefore, a framework suitable for these. As shown in Chapters X. and XI. of "The Genesis of Art-Form," *radiation*, or, as this is there termed, *central-point*, which, ideally if not really, is essential to constructing shapes with circular outlines, is merely a development—sometimes, as is the case with many effects in art, an excessive development—of the fact that in nature an object in the extreme distance is always related to a like object nearer us in

such a way that, if parallel lines were drawn between the two, and extended far enough into space, such lines would meet in the distance and form a point. For instance, to one looking down a long street, or the tracks of a railway, the lines formed by the sidewalks and foundations and roofs of the houses, if they be of equal height, or of the two or more tracks of the railway, all converge in the distance, and, though not actually meeting, suggest that they would meet, could a man see far enough. The point where, if extended, they would meet, is what the painter calls the vanishing point, and if he wishes to be mathematically exact in determining the sizes of his figures as represented at a certain distance, he will do so by drawing converging lines from the top, bottom, and sides of a like figure in the foreground, and making these, where they cross the place in which the figure is to be represented, measure the height and breadth. This principle, as applied to art, is the basis of the laws of linear perspective; and is amply illustrated in the left upper corner of Fig. 168, page 297. When carried out in a painting they make all the objects represented appear to sustain the same relations to one another as in nature; and they also make these objects sustain subordinate relations to one object of interest which, being in front of the vanishing point from which all the lines ideally radiate, necessarily suggests that everything is pointing toward it. Notice an artistic adaptation of this effect in the arms pointing to the central figures in Fig. 8, page 31.

But besides having this central-point of radiation, and therefore of principal importance, all views in nature have outlines which form a *setting* for this centre, outlines often dim and vague because of their distance from the vanishing-point; yet they at least make clear the place where

the range of vision, as well as the lines of radiation, are brought to an end. It is interesting to notice, too, that the extreme limits of these outlines, as in those of the horizon and zenith, not only, but also in the contour of any field of vision that can be comprehended in a single glance of the eye, are necessarily circular.

Once more, in addition to a vanishing point which is a *centre* of radiation, and outlines that give this a *setting*, every view of nature has a horizon line, and with this usually a large number of lines *parallel* to it, described, if in a sea view, by the caps of the waves; if in a land view, by the bank-lines of rivers, by the tops of forests, by the ridges of hills, or by the snow-lines of mountains. All such views necessarily include, too, parallel upright directions taken by the trunks of trees and plants, not to speak of the necessary parallelism wherever stand human beings, or their buildings. See Figs. 18, page 45; and 33, page 69.

Similar methods are exemplified also in the arrangements by which the features of particular forms in nature are related. Whether we study the veinings of a leaf, or the branches of a tree, the adjustment of the nerves, veins, or muscles of any living creature, or of the hands, feet, and limbs of a man, we find in all a tendency toward radiation. Sometimes the limbs on each side of a tree diverge from a point in its trunk; sometimes, apparently, from a point on the opposite side of the tree from that on which they are situated. As illustrated in Fig. 48, page 160, of "The Genesis of Art-Form," there are any number of places where ideally the centres of radiation may be; but that they are somewhere, the slightest examination will usually reveal. To such an extent at least is this true, that no one can question the statement that the

limbs of almost all plants and animals, each in a way peculiar to itself, have a tendency to radiate from the body to which they belong.

So, too, there is a tendency to curvature of contour where these lines end, and, in connection with both radiation and curved contours, a tendency to parallelism. In some trees, branches that begin by radiating become parallel soon, and continue so to their ends. In others, as in pines, parallelism seems to take the place of radiation altogether; and although radiation has been said to be exemplified in the arrangements of the nerves and muscles in the bodies of men and animals, nevertheless the arms, legs, fingers, toes, claws, as well as the two limiting sides of these separate members, and of the body as a whole, furnish examples of parallelism. As a rule, too, the way in which all the features on either side of a common middle, whether in the trunk of an animate or inanimate object, *balance* one another, illustrates *symmetry*.[1] No people, perhaps, apply the methods thus described more artistically than the Japanese, though often represented as ignoring them. Notice proofs of this in all four compositions in Fig. 45, reduced from "Fine Art Pictures," a Tokyo publication, by Katsugaro Yenouge.

FIG. 45.—JAPANESE COMPOSITIONS.
See pages 90, 93.

[1] All these art-methods are explained in "The Genesis of Art-Form."

The facts thus stated will show us that, whether applied to one figure or to a collection of figures, the framework, ideally or really underlying effects of regularity, represents, as do all the other factors of art, that which is required by the conditions not only of mental conception but also of material appearance. Now let us consider the representative characteristics of different degrees of regularity. The best way of starting to do this, will be to recall, for a moment, the conclusion reached on page 60 with reference to the outlines supposed to have been drawn on paper at hap-hazard. To the assertion there made, that the less thought bestowed on them the more likely they are to describe curves, we may add here that the more likely they are also to separate spaces or to describe shapes,—whether by curves or angularly turned straight lines,—which bend or point in many different directions, and in this sense are irregular. Of course, the converse, too, is true. The more thought bestowed on them, the more likely they are to manifest that sort of resemblance between spaces or shapes which underlies effects of regularity. This is the same as to say that the *instinctive* tendency leads to irregularity, and the *reflective* to the opposite. It follows, too (page 11) that the quality of the *emotive* tendency—as impelled without thought, or with it—represents itself (with special force here, see pages 22, 60, 96), whenever the other tendencies, as is usually the case, either blend or act alternately.

If, with these inferences in mind, we examine, for a moment, the actual appearances about us, we shall have no difficulty in finding analogous conditions indicated in them. The impression that we most *instinctively* form of nature, so far as man has not touched it, is that of irregularity. As a rule, this and nothing else is what moun-

tains, valleys, rocks, lakes, whether we consider their outlines or arrangements, seem to us to illustrate. For this reason, in a thoroughly successful painting of nature, the contours of hills, dales, rivers, foliage, and the forms of animals and men are never arranged along the lines of a framework with a too inflexible regard for such characteristics as radiation, parallelism, or balance; or, if they be, these methods are concealed so as not to be recognizable without study. Notice Figs. 18, page 45, and 33, page 69. Otherwise, the result would seem not even artistically natural but unnatural and artificial, regularity of outline being almost invariably an indication of the effects upon natural appearances of the *reflective* characteristics of man. This can be exemplified equally from landscape gardening and landscape painting. An artist, especially one of an early historic period, is almost as likely to arrange bushes and trees in symmetrical groups, if not rows, in the latter art as in the former, provided he can find or imagine a view-point from which this can be done; and, when depicting living beings capable of being moved about, he is sure to arrange them thus. Even in most imitative paintings, he sometimes changes the outlines of hills and valleys, or, if he cannot do this, he introduces regularity through the use of color. When it comes to architecture, where he is left free to design the whole appearance, regularity is always the main characteristic. But how is it about a combination of irregularity with regularity? Do we ever find this, and, if so, what does it indicate? For an answer, let us look at nature once more. There we shall notice that, though inanimate objects, like mountains, rocks, and lakes, mainly manifest irregularity, other objects, and always in the degree in which they approach animate existence, or are themselves higher

developments of it, manifest regularity also. The outlines of plants, trees, leaves, flowers, fruits, tend to symmetry. So still more do those of animals, and the most symmetrical of all forms which, at the same time, manifests great irregularity, is that of man. But his is exactly

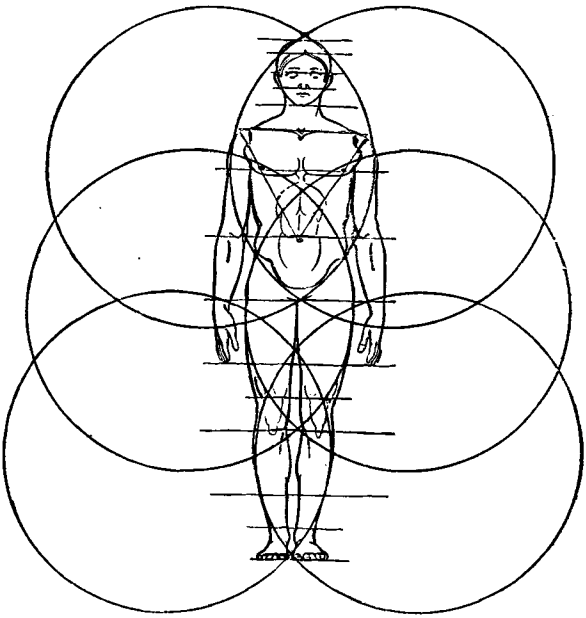


FIG. 46.—FIGURE DIVIDED BY LINES.
See pages 90, 97, 98.

the form that is fitted to make the strongest appeal to our combined instinctive and reflective, in other words, to our *emotive* nature.

It seems necessary in this place, therefore, to say something about the representative possibilities of the human form ; and of this, first, as determined by the blending in

it of regularity and irregularity. This latter, as we know, when it exists by itself alone, with nothing to counteract it, is confusing and therefore disagreeable; and the mind associates ugliness with it rather than beauty. How ugliness can be avoided, by introducing regularity in spite of irregularity, is a broad and complex question; but enough can be said of it here to indicate the principle involved. Recalling that by regularity in a figure, is meant its capability of being divided by parallel, horizontal, or vertical lines into like space-measurements, or, else, by the outlines of circles, ovals, squares, rectangles, or rhomboids, into like shape-measurements, let us examine Figs. 46, 47, 48, and 49, all of them produced by drawing lines through or about figures found in "Putnam's Handbook of Drawing."

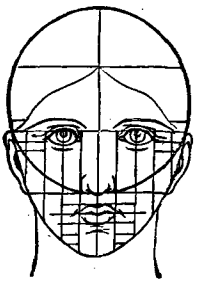


FIG. 47.—FRONT FACE DIVIDED BY LINES.

See pages 90, 97, 98, 101.

Notice, first, that the framework occupied by the form in Fig. 46, page 96, and by the faces in Figs. 47 and 48, page 97, and by the eye and ear in Fig. 49, page 98, is divided into like parts by parallel lines either horizontal, vertical, or diagonal. It is the fact of their occupying like parts which, for reasons to be given in the essay on "Proportion and Harmony in Painting,

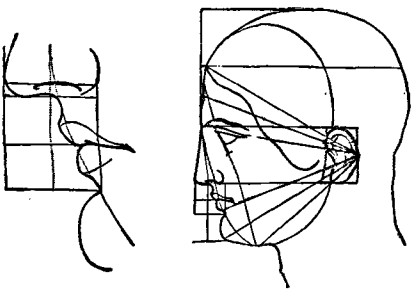


FIG. 48.—SIDE FACE DIVIDED BY LINES.

See pages 90, 97, 98.

Sculpture, and Architecture," is the main element causing features to be, as men say, in proportion. Notice also that, as related to shape, the general arrangement of the features is made to conform to the directions of the straight lines, as manifested, first, in the same inclination given to the ear and nose in Fig. 48, page 97, a requirement which the Greeks, notwithstanding their keenness of observation, seem often to have disregarded; and, second, in the general outlines of the hair on the forehead, and of the eyebrows, eyes, nostrils, and mouth, as in Fig. 47, page 97.

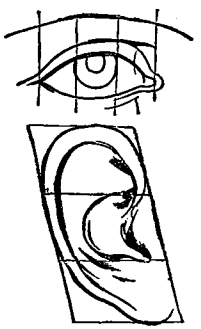


FIG. 49.—EYE AND EAR.
See pages 90, 97.

Besides this, notice the radiating lines in Fig. 48, page 97; also, in Fig. 47, page 97, the impression of regularity and, so far as this can impart it, of beauty connected with the combination of the circle and the oval in the general egg-like contour of the head and countenance. Finally, the circles drawn about the form—not wholly satisfactory—in Fig. 46, page 96, will reveal the presence of another phase of regularity, even to those who, as applied in this particular case, do not understand exactly what it is.

Very little thought, too, will cause us to recognize that these lines represent lines which we actually draw in imagination, and with which, thus drawn, we actually compare the features of the figure and face whenever we form an estimate of relative beauty or ugliness. When, for instance, a person is facing us, it is almost impossible not to suppose an imaginary vertical straight line drawn from the middle of his forehead to the middle of his chin, as in Fig. 47, page 97; and if we find this line passing through the middle of his nose, we obtain an impression of regu-

larity, which, so far as concerns it alone, is an aid to the agreeableness and consequent beauty of the effect; but, in the degree in which the middle of the nose is out of this vertical line, not only irregularity but ugliness is suggested.

FIG. 50.
MEPHISTOPHELES.
See pages 100, 118, 170, 176, 178.

Again, a similar tendency causes us to suppose other imaginary vertical straight lines, drawn, as in the same figure, at equal distances to either side of this central line, and from them we may gain an impression of relative regularity by noticing to what extent they pass through corresponding sides of the face. Besides this, we are prompted to suppose horizontal lines drawn, as indicated in the same figure, across the forehead, eyes, and mouth, and to form judgments from them too with reference to the degrees of regularity. It is important to notice, also, that we form these judgments in accordance with the principle of *correspondence*. When, as in these cases, opposite features of the countenance appear to be in exact balance, because they can be fitted into a framework that is exactly straight or rectangular, the external arrangement is satisfactory because it seems representative of something internal that is satisfactory; in other words, because we associate these physical conditions with correlated ones that are mental and moral. Because the face is square, we judge that the character is square.

FIG. 51.
CONTEMPT AND ANGER.
See pages 100, 118, 181, 182, 183, 184, 185, 189.

For instance, Mephistopheles on the stage is always painted with the arch of the eyebrows not in line with the horizontal, but beginning high up on the temples and running downward toward the bridge of the nose, see Fig. 50, page 99. This is the way, too, for reasons given in Chapter X., in which even a handsome man looks when contracting his brows under the influence of arrogance, pride, contempt, hatred, and most of all, of malice, see Fig. 51, page 99. With a similar general effect of irregularity, a simpleton on the stage is painted with nostrils and lips the sides of which exaggerate the expression of the smile by running too far up at the sides, as in Fig. 52; and a scold with the sides of the same features exaggerating the expression of the sneer and frown by running too far down. Notice Fig. 51, page 99.

FIG. 52.—LAUGHING AND SMILING.
See pages 100, 183, 184.

It must not be supposed, however, that countenances, in order to meet the requirements of regularity, need to be similar. In its way, a dog's face may be as regular as a man's; and there is no reason why one human face should not be as regular as another, though both differ almost radically. Of course, this could not be the case, if by regularity were meant conformity to a certain Greek type, which, as must be confessed, is the generally accepted supposition. Regularity, however, need not mean this; but only a condition in which the general outlines sustain analogous relations to lines or spaces of like directions or measurements. And there may be many different forms of which this can be affirmed, all corre-

sponding in principle though not in the method of applying it. For instance, none of the spaces in Figs. 53 to 57, pages 101 to 103, are divided as in the Greek type, which was evidently intended to be represented by the one who originally drew Fig. 47, page 97. Nor are all the faces in these figures divided alike. Yet all are divided according to what, in the essay on "Proportion and Harmony in Painting, Sculpture, and Architecture," will be shown to be the principles of proportion. For this reason, when, as is probable, nine tenths of all Americans tell us that they consider these faces, more beautiful than any conforming to the Greek type, they may be justified. According to the laws of form, properly interpreted, such faces fulfil the principles of proportion. But, besides this, according to the laws of significance, as derived from our association with faces of the ordinary American type, from our deductions with reference to the characteristics manifested by them, and from our sympathy with the persons possessing such characteristics, it is perfectly in accordance with æsthetic principles (see Chapter XIII. of "Art in Theory") to say that, while as beautiful in form as are the Greek faces, their beauty, to one of the race and country to which they belong, is enhanced on account of its significance.

FIG. 53.—FACIAL DIVISIONS.
See page 101.

Nor, even when forms do not fulfil, as these presumably do, the germinal principles of proportion, must it be

63915

supposed that they are necessarily ugly. As shown in Chapter XVI. of "The Genesis of Art-Form," there is sometimes a departure from the regularity of uniformity by regular degrees or gradations, which, of themselves, cause regularity in spite of difference. It is possible that the same principle, unconsciously applied, may mitigate the irregularity of effect in a human figure or countenance. A forehead, for instance, might be as much higher than the nose is long as this is than the length of the space between the nostrils and the chin; and such an arrangement might produce some impression of regularity, though with it, of course, there would be conveyed a stronger impression of the relative prominence of the characteristics indicated by the high forehead.

FIG. 54.—FACIAL DIVISIONS.
See page 101.

This statement suggests an important principle of art which needs to be noted here. It is that, sometimes, certain requirements of form have to be waived for the sake of significance. We all are acquainted with this fact as applied to paintings or statues containing two or more figures. We often see one of these made positively irregular and ugly, in order to offset, and thus enhance, the regularity and beauty of the others. This is done, for

FIG. 55.—FACIAL DIVISIONS.
See page 101.

instance, in Raphael's "St. Margaret" and "St. Michael," Fig. 58, p. 104. But the same principle is applicable not only to groups of faces or figures, but, in each of them, to groups of features. Irregularity in certain of these, if not greatly pronounced, though it may be altogether too decided to render possible any method of supposing them to be regular, may add at times not only to the interest, but even to the charm of the form in which it appears. Like the stronger shading of a line or color that enlarges the apparent condition of a factor for the purpose of emphasizing it, or of taking emphasis from some other near factor, irregularly may thrust upon attention that which thus interprets the meaning of the whole, and renders it in the highest sense representative. The expression of mere individuality alone necessitates having no two forms or faces in the world exactly alike. Yet thousands of them may be equally beautiful; and tens of thousands, though not equally beautiful, may be equally attractive; while, to the student of humanity, none can fail to be interesting.

FIG. 56.—FACIAL DIVISIONS.
See page 101.

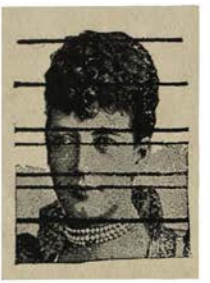


FIG. 57.
FACIAL DIVISIONS.
See page 101.

If this be so, the subject that we have been considering cannot be satisfactorily ended without some discussion of the general representative meanings of the differences and deviations in regularity which are possible to the

human form, including also the meanings of the positions, gestures, and facial expressions which it may assume for

FIG. 58.—ST. MICHAEL OVERCOMING SATAN. RAPHAEL.
See pages 62, 103, 145, 168.

special representative purposes. Inasmuch, too, as some features of this form are delineated in the vast majority of all paintings and statues, such a discussion here is

altogether appropriate, even though it may involve recalling, for the purpose of an application to this particular question, much that was said in Chapter V. with reference to the significance of outlines aside from their regularity. Moreover, as the human body furnishes that appearance in physical nature which is most nearly under control of the mind, and, therefore, most clearly represents the mind, it is that which can best interpret for us the way in which any physical appearance can do the same.

These reasons, together with the subtle and complicated effects to be examined, will sufficiently justify the extended discussion in the four following chapters.

CHAPTER VII.

REPRESENTATION THROUGH THE NATURAL SHAPES OF THE HUMAN BODY: GENERAL PRINCIPLES.

Importance to Art of the Study of the Meaning of the Shapes and Postures of the Human Figure—Sources of Information on this Subject—Relation of the Subject to Physical Facts—Meaning of Roundness or Broadness, Sharpness or Narrowness, and Length—Indicative Respectively of the Vital, the Mental, and the Motive Temperaments—Correlation between these and the Tendencies of Outline already Considered—The Forms Necessitated by the Physiological Conditions Underlying the Three—The Vital and Breadth of Form—The Mental or Interpretive and Sharpness at the Extremities—Connection between the Vital and Mental as Indicated by Length—The Motive or Active and Length of Spine and Muscles—The Same Shapes as Interpreted According to the Observations of Phrenology—Of Physiognomy—The Round Face—The Sharp Face—The Long Face—Of Palmistry—Different Temperaments are Usually Blended in All Men—Mental Tendencies Corresponding to All the Temperaments Exist in Each—How they are Manifested by the Torso and Lower Limbs—By the Hands and Head—In Connection with Activity.

AS just indicated in the preceding chapter, the outlines which represent thoughts and emotions the most unmistakably are those manifested through the forms and movements of human beings. These outlines are made representative, too, in many different ways, in each of which the slightest change may involve a change in meaning sufficient to make an otherwise successful human figure, as depicted in painting or sculpture, wholly unsuccessful.

Hence the importance of a thorough understanding of the subject.

With reference to it, very fortunately, there has been, of late, no lack of study, not only by men approaching it from a general view-point like Darwin in his "Expression of the Emotions in Men and Animals," but by those who have made a more narrow specialty of physiology, physiognomy, phrenology, palmistry, and gesture. It cannot be claimed, of course, that the systems treating of any of these subjects have, in many cases, made exact sciences of them; or that the reasons given for the facts observed are invariably tenable. At the same time, the conclusions reached have been the results of innumerable investigations, carefully made by many a shrewd observer; and men whose business it is to represent the human form, or to criticise representations of it, cannot afford to ignore this fact. Nothing, indeed, can be more inexcusable than the outlines of the faces, heads, hands, trunks, and limbs, with which many otherwise accurate artists imagine themselves to be depicting a person of a certain temperament or tendency; or the postures and gestures through which they suppose themselves to be causing him to give expression to certain typical thoughts or feelings. It cannot be without profit, therefore, for us to attempt, with the aid of what can be learned from sources such as have been mentioned, and following no one authority slavishly, to consider the human form, and to find out and to state as concisely as practicable, the conditions that seem to be represented by the different aspects and attitudes which, in certain cases, it may assume.

It will be logical for us to begin by noticing the relation to our subject of facts having to do merely with physique. Moses True Brown, in his excellent work on "The

Synthetic Philosophy of Expression," quotes with comments of his own, the physiologist, Alexander, as saying that on the *breadth* of the cerebral organs depends their permanence, and on their *length* their intensity. Another whose ability to interpret the meaning of the human shape was in his day surpassed by none, Mr. O. S. Fowler, the phrenologist, tells us in his "Self-Instructor," that "spherical forms are naturally self-protecting. Roundness protects its possessor. So all round built animals are strong-constitutioned"—in other words, "*breadth*," as he terms it, "indicates animality"—a statement which, though it explains nothing, coincides with what we have already noticed on page 61, of the connection in nature between the curve and the evidences of buoyancy and life. "Excitability," he says again, is indicated by *sharpness;* and when he goes on to develop what he thus affirms, he shows that by "excitability" he means chiefly, if not exclusively, mental excitability. "People of this class," he says, are "*brilliant* writers and speakers," putting the adjective in italics. Besides this, too, he also makes sharpness characteristic of what he terms the "mental" temperament. "Activity," he continues, "is indicated by *length.* Developing what he means by activity, he affirms that those of this class are "intellectual and moral," and that "their characters, unless perverted, like their persons, ascend."

Of course, while giving due weight to the results of a man's experience, there is no need of accepting, in the form of a general rule, an assertion like this, to which there are so many exceptions that it is no general rule. The intellectual, the moral, and the aspiring depend upon the quality of that which is behind the outward form. At the most, the form can only show the capability of the

man in giving expression to these. Indeed, it would be unjust to Fowler not to add that he himself provides for exceptions to his rules by saying that the "primary forms and characters," to which we have just referred, "usually combine in different degrees, producing, of course, corresponding differenccs in talents and characteristics. Thus eloquence accompanies breadth combined with sharpness; some poets are broad and sharp [Fig. 59], others long and sharp [Fig. 60], but all are sharp." Following this preliminary explanation, Fowler gives us the well-known and customary classification of temperaments into the *vital*, which would be manifested by what he means by *roundness;* the *mental*, manifested by *sharpness;* and the *motive*, by *length*. These terms have been in use for years, but their meanings are not always distinctly understood; nor in what sense each can be said to be represented by a different tendency of form. Let us, for a moment, then, consider these questions, as well as the way in which the three temperaments and the shapes manifesting them can be correlated to the three tendencies of shape considered in Chapters V. and VI.

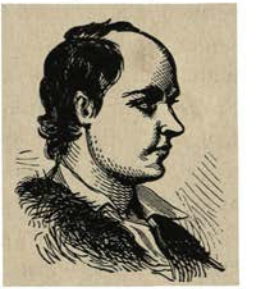


FIG. 59.—GOLDSMITH.
See pages 109, 113, 115, 117, 119, 124, 187.

FIG. 60.—LONGFELLOW.
See pages 109, 113, 115, 117, 119, 124.

To begin with, notice that when, as in these chapters, we divide shapes into those composed, first, of curves, second, of angles with straight lines, and third, of all three combined, we are analyzing the methods through which an outline of one direction passes into one of another direction more accurately than when, in a vague way, we divide forms as wholes according to some general effect of roundness, sharpness, or length. Notice, too, that, while, strictly speaking, the same feature cannot be both round and sharp or round and long, it can be both sharp and long; that, in fact, it is usually the sharper the longer it is,—which of itself, suggests a justification for the connection between the two which was brought out on page 56. Notice, finally, that the only unmistakably separated conditions are roundness and sharpness, said by Fowler to represent, respectively, vitality and mentality. These two, therefore, let us consider first; after that we can consider the connection between both and length.

The condition to which the term *vital* is given, and which we are told is indicated by *roundness* or *breadth*, means simply a frame so constituted that its controlling element seems to have its source in the fact that there is plenty of space for the free exercise and development of the organs upon which vitality or a sound physique depends. These organs are primarily those of digestion and breathing, which are situated in the torso. But full, well-rounded arms, necks, or heads, for the reason that they naturally accompany such a frame, may also, in a partial degree, suggest the same condition.

The condition to which the term *mental* is given, identified by Fowler with excitability, and which is said to be indicated by *sharpness*, means a frame so constituted that its controlling element seems to have its source in its

ability to represent by form and action those more delicate and subtle shades of expression which render the distinctive moods and movements of the mind intelligible. Excitability is said by some to be characteristic of mentality, for the very good reason, probably, that the brain is the highest development of the nervous system, and the nervous system is the source of excitability. But, as is sometimes forgotten, the brain may also, as when absorbed in thought—and this too when the nerves are strongest,—express the fact by refraining from an appearance of excitement. It is only in the sense of possessing a *possibility* for distinctively mental nervous excitation, that it is proper to say that excitability and mentality are one. Even clothed in this language, the statement is not wholly satisfactory. The nervous system and mentality too are both of them really at the basis of all kinds of expression, whether of vitality, of activity, or of that which we are now considering. Even Fowler while he calls this latter "mental," says, in a quotation already given, that it is those of the active or motive temperament who are "moral and intellectual." What distinguishes the temperament with which we are now dealing from the two others, is the fact that in it the form seems to be mainly shaped and controlled by forces having to do with the communication of thought, which it appears to be all the while interpreting. For this reason, it might possibly be termed the interpretive temperament. The organs of interpretation, that distinguish a man who has highly developed mentality from an animal that does not have it, are at the extremities of the body; and it is a fact that just as *roundness* of the torso best represents a well developed vital and physical nature, so a shape that, in a general way, may be termed *sharp*, best represents a psy-

chical nature. All animals have an abdomen and lungs; and many seem to have little else. But in the degree in which they have intelligence or interpretive power, the organs manifesting this push out from the extremities. It is of this that we think, when we see the delicate tendrils of the insects and the play of the ears and tails of dogs and horses. Some of the lower forms of life seem to have no heads, many have no feet, and, if a few have hands, none have either heads or feet or hands that are able to do what those of men can. The reason for this, too, is that the faces and hands of men—their eyebrows, noses, chins, when in repose, and the same features too, as well as their eyes, and mouths, and fingers, when in action, are much more sharply defined, or capable of assuming forms that are, than are the corresponding features in the animals. Individual men, too, differ in this regard; and, as a rule, the round, fat, and, for this reason, inflexible shape cannot represent thought in the same unmistakable way as the one that is sharp, thin, and flexible. Sharpness therefore indicates the degree of *interpretive* mentality.

Observe now that, when a feature is sharp, it has also a certain degree of length. Observe, too, that, according to what was said on page 66, length of lines is representative of persistence, seriousness, and dignity. But these are traits with which we associate both thoughtfulness and morality. What more natural then than that length, as said by Fowler (see page 108) should be taken to represent the "intellectual and moral." But of these two the intellectual—which fact will recall what on page 61 was said of the effects of long straight lines—is connected with the mental. How is it with the moral? To find an answer to this, notice, first, that as the organs of the vital or physical nature are at the centres of the body, and

those of the mental or interpretive are at its extremities, the degrees of the length of the organs intervening between the two, measure the degrees of the distance between them. This being so, does it not follow, according to the principles of correspondence, that of two men having equal interpretive mentality, the one whose extremities, which are the agents of this, are nearest the vital centres will suggest mentality as being more immediately under the influence of vital or physical instincts, than will the one whose extremities, on account of the length, to say nothing of the accompanying strength, of the intervening organs, are remote from these centres; and that, therefore, the latter man, other things being equal, will seem to have the most power to resist his purely physical tendencies, or to have, as we say, the most moral power? Does not this suggested inference partly explain why most of us associate the possession of more moral force with a long and sharp face and form like Longfellow's in Fig. 60 page 109, than with a combination of round and sharp, as in Goldsmith, Fig. 59 page 109? Now consider again that when we speak of moral force, as thus produced, we refer to an effect attendant upon a particular method of blending vitality with mentality, or that which is represented by degrees of roundness with that which is represented by degrees of sharpness. But whenever these are blended at all we have, as was shown on pages 11, 59, and 60, an emotive result. The moral as indicated by length, therefore, is merely an emotive result in which the mental appears stronger than the physical. Accordingly, though the terms moral and motive include only a part of what is elsewhere in this volume termed emotive, they include enough to justify a correlation of them to it. Indeed, as applied to action, as is mainly the case when considering

their effects in the human frame, they include about all of it; for we must not forget that, in dealing with length, we are dealing with degrees of it—slight as well as great,—and, therefore, with the general topic of the degrees in which mentality exercises control over vitality.

The greatest degree of this control is supposed to be indicated by length, because a long frame seems to allow the most unlimited scope for the exercise and development—of course under the influence of mind—of the organs which are the sources of motion or action. These organs are primarily the nerves, the lungs, and the muscles. The nerves regulating conscious action are in the cerebro-spinal system (page 127). The spine is a feature differentiated from other features of the body by its length. A long spine is usually accompanied by long ribs, and the two together give both depth and expanse of chest for the air that sustains activity. Such a spine is usually accompanied, too, by long limbs, with long muscles. The peculiar function of the latter is to pull; and length best enables them to pull effectively. For all these reasons, length seems to indicate activity, a fact so often noticed that it needs no further illustration. It can be verified by recalling not only the forms of the most active men, but also of animals like the eel, greyhound, deer, giraffe, and tiger. But, now, a man so constituted as to possess great possibilities for activity, will be apt to manifest possibilities for self-control and persistence in whatever his inward nature prompts him to undertake. Self-control gives dignity of bearing; and tall men usually possess this. In connection with persistence, self-control also gives control of others and an ability to survive and overcome opposition. Hence the qualities assigned by Fowler, as quoted on page 108, to the *motive* temperament characterized by *length.*

These suggestions derived from physiology are confirmed by those derived from phrenology and physiognomy. Fig. 61 contains little to which the most scientific physiological psychologist could object. By comparing it with the head of the prize-fighter, Yankee Sullivan, in Fig. 62, we can recognize in what sense both figures confirm the general principle that the round or broad face or head — the head disproportionately broad at the ears — indicates strong vital and physical tendencies. Comparing Fig. 61 again with Figs. 59, page 109, and 60, page 109, we can recognize in what sense the sharp face with the pointed nose and lips, especially when combined, as it usually is, with prominent and sharp, in the sense of irregular, organs in the forehead, and wrinkles about the eyes, indicates the essentially mental and interpretive organization. Once again Fig. 61 will suggest why the long face and head, made long mainly by rising above the ears and mouth, indicate strong motive and moral powers as manifested by exercising mental control over physical conditions. A practical illustration of the fact may be noticed in the face of Napoleon, Fig. 63, page 116, and also, with somewhat shorter and sharper effects, indicating a greater tendency to interpretive mentality, in the face of the theological leader, Albert Barnes, Fig. 64, page 117.

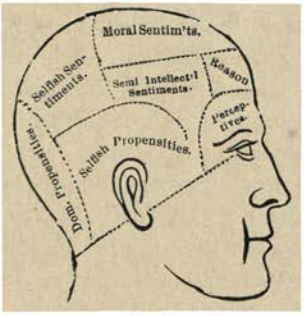


FIG. 61.
PHRENOLOGICALLY DIVIDED HEAD.
See pages 115, 124, 167.

FIG. 62.
YANKEE SULLIVAN.
See pages 115, 119, 124.

The references already made to the eyes and nose show that the testimony of physiognomy must be added to that of phrenology in order to bring out here all that is necessary. According to physiognomists, the round, broad face most nearly resembles that of most of the less intelligent animals, like the toad and reptile. It is usually accompanied by the largest jaws and mouth, through which food enters the abdomen, in order to sustain the vital nature. It must not be overlooked, however, that even the mouth is a part of the head, for which reason, while it gives a vital emphasis, the quality to which it gives this emphasis may be mental. Indeed, it is through the mouth that the inaudible processes of thought obtain materialization by being converted into language. Thus understanding what is meant by vitality of emphasis as imparted by this part of the face, notice how the following quotations, though not written for any such purpose, confirm the general principles that have been unfolded. Very large lips, says Mantegazza, in his "Physiognomy and Expression," as epitomized in "Werner's Magazine" for January and February, 1895, are "almost always combined with great sensuality"; and again: "If the eye is the most expressive part of the face, the mouth is the most sympathetic. The desires of love and the ardors of voluptuousness converge about it as their natural centre.

FIG. 63.—NAPOLEON BONAPARTE.
See pages 115, 118, 119, 120, 124, 169, 177, 179.

. . . The eye is the mimetic centre of thought; the mouth is the expressive centre of feeling and sensuality. . . . The woman whose eyes inspire us with love, makes us enthusiastic, exalts us, throws us into an intellectual ecstasy; but she whose mouth fascinates us, clasps us in her arms. The eye is the azure heaven to which no one may attain; the mouth is the earth with its perfumes, its warmth, and the deep delights of its fruits." The same writer quotes from Herder the statement that "the upper lip reveals our inclinations, appetites, affectionate distress; pride and anger make it curl; craft and cunning make it thin; goodness bends it; dissoluteness weakens and debases it; love and the passions become incarnate in it with an ineffable charm." Lavater in his "Physiognomy," divides mouths thus: (1) The mouths in which the upper lip projects a little (notice that this upper lip is nearest the middle of the face where mental and vital expressions are most nearly combined, and all expression is therefore most nearly emotive)[1]; this is the distinctive mark of goodness, we may therefore call these the sentimental mouths (see Figs. 59 and 60, page 109). (2) The mouths in which both lips project equally (notice that this effect approaches that of a perpendicular straight line (see page 66, also Fig. 64); they are to be found in honest, sincere men, and may be called the loyal mouths. (3) The mouths in which the lower lip projects beyond the upper one. This is nearest the part of the face ex-

FIG. 64.—ALBERT BARNES.

See pages 115, 117, 118, 124, 182.

[1] See pages 11 and 121.

pressive of the physical nature (Figs. 50 and 51, page 99). These "may be called irritable mouths." Mantegazza's criticism here brings out more clearly the correspondence between this last condition and the fact that the lower lip is nearest the part of the face expressing the physical or vital characteristics. He says: "The extreme prominence of the upper lip often goes in company with scrupulousness; while, on the contrary, a marked protuberance of the lower lip denotes great firmness of character or obstinacy." He also says, with reference to the chin: "It seems to be proved that, all things being equal, a strong projection of the chin [Figs. 63 and 64, pages 116, 117] has the same significance as in the lower lip noted (five lines) above. It is the ethnical characteristic of the English people, who are a strong-willed people." Then he quotes Lavater again as follows: "Long experience proves to me that a prominent chin always indicates something positive, while a retreating chin is always negative in its significance." He also quotes from Tomassee's "Moral Thoughts" to the effect that "a small chin is a sign of an affectionate nature." This is the same as to say that it is a sign of absence of wilfulness, which absence is essential for a yielding, sympathetic character. "A long, full chin," he goes on to say, "is a sign of coldness; a long, receding one, of perspicacity and firmness" (notice in both these cases the characteristic, peculiar to the motive temperament, of *length*); "and a dimple in the chin (akin to the vital or roundness), of more grace of body than of soul."

Now let us turn to the sharp face. This is represented by physiognomists as most nearly resembling that of most of the more intelligent animals, like the dog, horse, and bird. It is usually accompanied by the keenest-looking

eyes, and these are centres of nerve-force, the "windows of the soul," far better adapted for drawing inferences into the mind than food or air into the body. Some of the quotations already made have included references to the indications given by the forehead and eyes. But besides what has been said, notice how perfectly Lavater's interpretations of the meaning of the eyebrows conform to the representations of the general effects of the curve, the straight line, and combinations of both as explained on pages 58 to 77. "The eyebrows alone," he says, "often express the whole character of a man. Witness the portraits of Tasso, Leon Battista, Alberti, Boileau, Turenne, La Fevre, Apelles, Oxenstiern, Clarke, Newton, etc. . . . Eyebrows gently arched accord with the modesty and simplicity of a young girl [see Florence Nightingale, Fig. 104, page 172]. Placed horizontally and in a straight line [see page 66], they indicate a vigorous and virile character . . . [see page 61; also Fig. 63, page 116]. When one half is horizontal and the other half is curved, a strong intellect will be found united with ingenuousness and goodness [see Figs. 59 and 60, page 109]. I never saw a profound thinker, or a firm and judicious man, with thin eyebrows placed very high and dividing the forehead into two equal parts. . . . Thin eyebrows are an infallible sign of apathy and indolence. . . . The more closely they approach the eyes, the more serious, profound, and solid is the character, which loses in force, firmness, and intrepidity in proportion as the eyebrows mount" (see Fig. 62, page 115). With reference to the forehead, again, Lavater says in his "Physiognomy": "Contours arched and without angles indicate sweetness and flexibility of character" (see Fig. 59, page 109; also page 61). "It becomes firm and inflexible in pro-

portion as the contours of the forehead become straight" (see Fig. 63, page 116). "In women," says Mantegazza, "at least among superior races, the superciliary arches are slightly marked or wholly wanting; the forehead is narrow with very marked bumps [interpretive, see page 112], characteristics also to be found in the skull of a child. Another very usual feature of the feminine skull is that it rises vertically, then bends abruptly toward the crown, making a very sharp angle. In the masculine head, on the contrary, there is no break between the curve of the forehead and the curve from forehead to occiput. The child's head is to be particularly distinguished by the great development of its bumps."

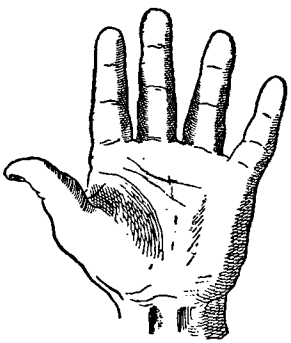


FIG. 65.—BROAD HAND AND ROUND FINGERS.

See pages 121–123.

Once more, let us look at the central part of the face between the eye and the mouth, where we find the nose, from which, as is evident, we are most likely to draw inferences with reference to length of countenance representative of the motive nature. Here, as will be noticed, are the nostrils furnishing the lungs with air, which, as pointed out on page 114, have so much to do with the *motive* possibilities. But, most important of all, here is the region of what we may call activity of countenance, and the active and the motive, as the terms are used, are synonymous. Notice, too, that, in strict accordance with what was said on page 11, this region includes both that which is in the neighborhood of the lips, mainly expressive of the results

of physical temperament or will-power; and also that which is in the neighborhood of the eyes, mainly expressive of the results of intellectual temperament or thought-power; while just where both may be supposed to be equally influential, is represented, in the movement of the nostrils, the distinctively emotional bias, as in manifestations of taste or distaste, pleasure or displeasure (see Figs. 124, page 183, and 127, page 185).

Palmistry tells a similar tale. There are hands which, as wholes, may be said to be round, sharp, or long; and each of these may, in certain of their parts, exhibit characteristics belonging to the others. It may be said, in general, that the round or broad hand, the hand with a fat palm, as well as fat, well-rounded thumb and fingers, shows physical and vital tendencies in excess (see Fig. 65, page 120). The sharp, rather than round hand, the hand broad at the base, but assuming a wedge shape when the fingers are brought together, which themselves too are not rounded but have edged sides, knotted joints, and somewhat flattened ends, belongs to the nervous man, the man of brilliant mentality, quick to perceive, interpret, and render intelligible the general features of that which is presented (see Fig. 66). The long hand, including often too the *spatulated* effect, as in Fig. 67, where the whole finger looks like an extended rectangle shaped as if to make the finger's sides seem as long as possible, belongs to the

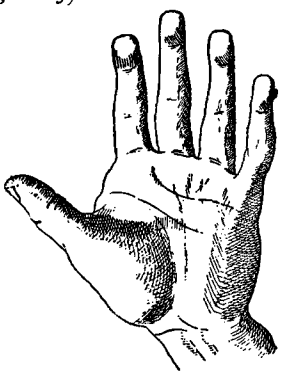


FIG. 66.—SHARP HAND WITH EDGED AND KNOTTED FINGERS.
See pages 121–123.

man given to details, the man persistent in dealing with small minutiæ, either of thoughts or of things, never tired of picking them out and polishing and putting them into their proper places, the man who in this sense shows great motive power, activity, and persistency.

Of course few actual forms to which the deductions of these so-called sciences apply belong to any one type exclusively. As intimated on page 109, round and sharp characteristics, as also sharp and long ones, are more frequently than not found together. The question of the predominance, therefore, of a vital, mental, or motive temperament, is determined less by the absolute presence or absence of that which causes it than by the relative influence which this exerts.

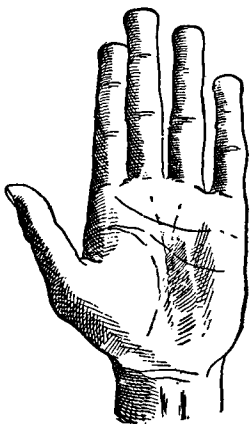


FIG. 67.—LONG HAND AND SPATULATED FINGERS.

See pages 121–123.

Another fact closely connected with this is that all the parts of the human form, to the predominating influence of which each temperament is ascribable, exist in all men. Therefore in all men there is a vital, mental, or motive tendency, with a possibility of giving an interpretive bias in each direction. In other words, because a man has, in general, a vital temperament, this does not interfere with his tempering for special purposes any of his actions with a special mental, or motive emphasis. It will be recognized too that just as temperament is in its essence physical or vital, interpretive emphasis is mental; and that the form of this emphasis, so far as it can be im-

parted aside from the actions prompted by the motive nature, which actions will be considered in a following chapter, is a result of the prominence, natural or assumed, of certain parts of the body.

With reference to the representative effects of these parts, it involves little more than a recapitulation of what has been said already, to add that we naturally judge of vitality, pure and simple, from the torso; of mentality from the extremities, especially the hands and head; and of activity from the legs and arms. Taking the torso alone, we judge of its mentality from the interpretive movements of the shoulders; and of its relation to activity, plainly emotive in this case, from the breast. Taking the legs and arms by themselves, we judge of their relation to vitality from the hips and shoulders; of their relation to mentality from the interpretive movements sometimes made by the feet as well as hands, and of their mere activity, emotive too, as is proved by the awkwardness occasioned by the presence of anything to embarrass or restrain, from the knees and elbows. We must bear in mind, however, that, because the legs run up to the abdomen, there is always a peculiarly vital (and physical) suggestion in connection with even their most mental and emotional phases of expression; and that, because the arms run up to the shoulders and head, there is a peculiarly emotive and mental tendency connected with even their most vital and physical phases of expression.

Taking the hands by themselves (Figs. 65, 66, and 67, pages 120 to 122), we judge of their relations to vitality from the lower palm; of their mere mentality from the fingers, as will be shown on page 155, when we come to speak of the finger gesture, and of their relation to activity from the thumb and upper palm, which latter, in order to indicate

inclination for or against a person or conception, is always turned, as will be shown, so as to welcome or to repel him. Each of the three divisions, too, of the thumb and fingers seems to be correspondingly related, the length of that nearest the palm indicating, according to palmistry, the relative importance given by the mind to material considerations, of that nearest the end to ideal considerations, and of that between the two to the practical results of both combined. Taking the head by itself (see Fig. 61, page 115), and not forgetting that all its manifestations are primarily mental, we judge of its relation to vitality by the back, especially at the lower parts near the neck, and as far up as above the ears (Fig. 62, page 115); of mentality by the front, especially at the higher parts about the eyes and forehead (Figs. 59 and 60, page 109); and of activity or moral possibilities of control by the middle, especially at the top above the ears and at the crown, and also by the nose (Figs. 63, page 116, and 64, page 117). If we look at the face, we judge of vital or physical will-force by the lower jaw (Fig. 62, page 116); of mentality by the forehead and eyes (Figs. 59, 60, 63, and 64); and of activity by the middle again, the region between the eyes and mouth, including both. A large nose, for instance, indicating reflective or calculating, sometimes selfish, activity (Fig. 63, page 116); and a large lip, indicating instinctive, non-calculating, often unselfish, activity (see Fig. 60, page 109).

It is evident, however, that all that has been said in this chapter can make the body representative to a complete extent, in so far only as to the possibilities of physical temperament as manifested in the form, or of interpretive significance as manifested in arrangements of particular parts of the same, are added the influences of motive activity. These will be considered in the chapters following.

CHAPTER VIII.

REPRESENTATION THROUGH THE POSTURES OF THE HUMAN BODY: GENERAL PRINCIPLES.

Three Divisions of the Subject, namely, the Sources, Directions, and Forms of the Movements—The Vital or Physical Sources of Movements Show that the Vital Tendency Leads to Instinctive, Unconscious, Unpremeditated Expression—The Mental Tendency to Reflective, Conscious, and Premeditated Expression—The Motive, Emotive, or Moral Tendency to a Combination of the Two Forms of Expression—The Mental or Interpretive Directions of the Movements Show that Vital Expressions Move away from the Body—Mental Expressions Move toward it—Motive Expressions are in Combinations of the Other Two, as when Alternating or Oblique—Delsarte's Theories—The Active Effects of the Movements are, in the Case of Vital Expression, Free, Graceful, and Round—Of Mental Expression, Constrained, Awkward, Straight—Of Motive Expression in Action, Covering Much Space, hence Long—If Very Emotive, Varied and Angular—If Moral, Tense and Rigid—How the Actor's and Orator's Movements Combine Curvature and Straightness, Grace and Strength.

WE have found in the human form three general physical temperaments; and we have found also that these may be made representative of psychical tendencies. Moreover, we have found that, as the organs emphasized in each temperament are possessed by all men, so the tendencies represented by each are in all men, and, in certain cases, will manifest their presence. But so far we have not considered the possibilities of their doing so, except aside from any reference to action. Now we are to con-

sider them in connection with this. Our subject naturally divides itself into three heads: the first suggested by the physical sources of the movements; the second, by their directions as influenced by the mental aims of expression; and the third, by their forms, as manifesting the mode of activity resulting from the combined influences of their sources and their aims.

Let us consider, first, what is suggested by their physical sources. The organs of the *vital* nature were said to be primarily those which control the accumulation and distribution of nutriment. The operations of these organs are performed as well in the body of an animal as of a man. Moreover, they are carried on entirely by the sympathetic nervous system, over which the mind exercises no conscious control. In the sense of being both physical and unconscious, they are also *instinctive*. But besides these movements having to do with the peculiar functions of the torso, other apparently unconscious movements are made by the body, and among them are many which, as a rule, have to do solely with the expression of thought. Others, too, when made unconsciously, are found to be dependent mainly upon the temperament that one has inherited or the health that he happens to have acquired—in other words, upon the state of his vitality. To such an extent is this so, that men have come to associate all instinctive, unreflective, and thoughtless, in the sense of being unconscious and unpremeditated, movement, with that which represents the condition or tendency of the vital nature.

Exactly the opposite is true with reference to that which represents the *mental* or interpretive nature. The organs of this are in the head or hand, and are fully developed only in man. Their movements are carried on by

the cerebro-spinal nerves, which attain their highest perfection and are at their best when consciously controlled by his mind. It exercises this control according to what Herbert Spencer, in his "First Principles," terms reflex action, in which, as manifested in the lower orders of being, he tells us that "we see the incipient differentiation of the psychical from the physical life." All this implies that the distinctive characteristic of psychical or mental action consists in its being conscious and *reflective;* and though the head and hand are its chief instruments of expression, we naturally associate with it all contemplative and premeditated movements wherever made.

The *motive* nature has been said to be determined by the degrees of activity, and its chief organs have been said to be in the upper chest and the limbs. Activity, however, is not peculiar to the motive temperament. Without action of some kind neither the vital nor the mental could find expression. Moreover, all actions of the body of any kind are carried on either in the instinctive way, having its source in the sympathetic nervous system, or in the reflective, having its source in the cerebro-spinal. We must infer, therefore, that the expressions of the motive nature involve a combination of the two kinds already considered. If with this deduction in mind, we think, for a moment, of the movements of the upper chest, the chief seat of this nature, we shall recall that the lungs may be inflated either vitally, *i. e.* instinctively and unconsciously, or mentally, *i. e.*, reflectively and consciously. And the same is true, though in a less marked degree, of movements in any part of the body. It was shown on page 11, that the condition in which the *instinctive* and *reflective* tendencies unite is the one that best represents the *emotive* tendency. As a fact, do we not always associate the heaving

of the chest, where, as has just been shown, they most unmistakably do unite, with a distinctive expression of emotion? It was also said in the same place that the term emotive, as there used, was not meant to designate merely the physical and vital feelings, but a combination of them with mentality, such as causes the result to be representative of soul. This statement, too, conforms with everything that can be said of this motive temperament. Its chief source is the upper chest, to which are attached the arms. Here are the lungs which furnish the purest sustenance of life to the heart, which is the spring of all activity; and upon the right exercise of activity depends the condition of the moral nature. This temperament is therefore called not only the *motive* and *higher emotive*, but also the *moral*. See again page 112.

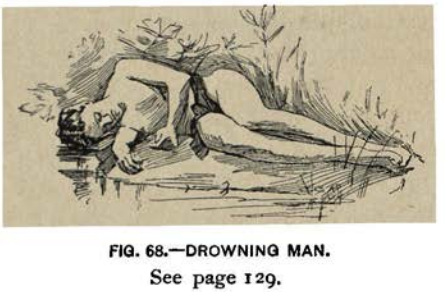


FIG. 68.—DROWNING MAN.
See page 129.

Having considered now the significance of these movements, as determined by their physical sources, let us consider that of their directions as influenced by the mental aims of expression. All that can be said here, of course, must be founded upon observation, and a very little observation, when aided, as fortunately it can be by the system of Delsarte, especially as developed by his many followers in our own country, will convince us that expression, in the degree on which it is purely vital, leads to movements outward and upward from the body, life always having a tendency to unfold from the

internal to the external. When a man, as in drowning, loses vitality, his thumb and fingers bend toward the palm, and his hands, arms, legs, and head toward his trunk (see Fig. 68, page 128). But where his body is full of life, there is an instinctive and unconscious overflow of activity for which all the agencies of expression seem to be chiefly engaged in furnishing an outlet through movements chiefly upward and outward. A child jumping and gesturing along the street, with no one near to embarrass him or make him think of his actions, will sufficiently illustrate this statement (see again Fig. 26, page 60).

FIG. 69.—REFLECTION. See pages 129, 142, 156, 162.

Purely mental expression, on the contrary, tends to movements in the same directions as the non-vital; but they differ in that they are made more consciously and emphatically. When one is absorbed in reflection, or is contemplating an object with a view to studying it, he draws his head and hands together, his form may bend at the waist, and very likely he sits down. If then it be an exertion of will that he is contemplating, his hand, in accordance with the principle unfolded on pages 118 and 142, will move toward the chin as in Fig. 69; if of emotion, it will move toward the nose, as in the bending figure to the left in "The Woman Taken in Adultery," Fig. 80, page 139; and if it be of thought, his hand will seek his forehead, as in Fig. 70, page 131. Notice also what is said on page 156.

Again, it follows from what has been said already, that the motive or distinctively emotive form of expression is

a combination of the other two. In the degree in which the instinctive or unconscious tendency of this combination is in excess, there are usually upward (Fig. 26, page 60), and then, to prepare for more of the same kind, alternating downward movements or inward (Fig. 99, page 163), and alternating outward movements (Fig. 78, page 136); or sideward, and alternating movements in an opposite direction, like simple twisting or swaying of limbs or body (Fig. 85, page 146). But in the degree in which the reflective or conscious tendency is in excess, there is a process of opposing counteraction that impedes excess of movement, checks mere alternation, and causes a blending of the two methods in one. The latter condition leads to oblique movements forward or backward (Figs. 73 and 74, page 132). These, if forcibly made, representing instinctive lack of control and also, at the same time, reflective control; in other words, both excitement and purpose, with a predominence of the latter, have a peculiar and powerful emotive effect of their own, which effect, uniting, as it does, all that is most animal with all that is most calculating, is distinctly suggestive of threatening hostility. The oblique movement forward is the most indicative of the threat (Fig. 73, page 132); and that backward, the most of mere hostility (Fig. 74, page 132); but either may presage equally unpleasant results.

For this way of analyzing the different kinds of movement, as well as of associating certain tendencies of expression with certain parts of the body, which will be considered in the next paragraph, the world seems to be indebted primarily to Delsarte. His followers term the three kinds of movement just considered sometimes the vital, the mental, and the moral; sometimes the sensitive, the reflective, and the affective; sometimes, referring to their

FIG. 70.—STERN'S MARIA, BY WRIGHT OF DERBY.

See pages 129, 142, 156, 168.

directions, the eccentric, the concentric, and the normal; and sometimes they use other names; but the movements, as applied to human expression, would never have been systemized except for him. In this volume they are not always interpreted as in his system; nor are they developed into his nine other movements. It has been thought more safe for theoretical purposes, as well as sufficient for practical purposes, to ascribe them, more fully than he did, and confine them, to the antagonisms which exist between the tendencies of the body and of the mind.

FIG. 71.—UPWARD CLOSING GESTURE.
See pages 145, 152, 156, 161.

FIG. 72.—SIDE CLOSING GESTURE.
See pages 140, 156, 158.

Here, too, the movements are correlated, as in the Delsarte system they are not, to methods employed in the other arts. Indeed, while giving all due credit to the great French teacher, it is not necessary to ascribe to him every suggestion connected with this subject. Divisions into threes are not uncommon. See the note on page 17 of "Poetry as a Representative Art."

FIG. 73.—OBLIQUE FORWARD MOVEMENT.
See pages 62, 130, 137, 145, 148, 167, 172, 175.

FIG. 74.—OBLIQUE BACKWARD MOVEMENT.
See pages 62, 130, 145, 148, 158, 167.

Much of what is to follow, including the explanation of the principles underlying the gestures of the arms and hands on pages 149 to 164, upon which is based, too, the whole system of facial expression in Chapter IX., was prepared from original material for the "Orator's Manual" years ago; nor are any explanations similar in kind traceable to Delsarte, though, as they are now adopted almost universally by those who teach his system, they have come to be incorrectly attributed to him.

In accordance with the intention indicated on page 126, we have still to notice the conditions of thought represented by the effects of the tendencies under consideration, as manifested in the forms of activity resulting from the combined influences of their sources and directions. To treat this part of our subject properly we must divide it, and observe the effects of activity in connection with the tendencies, first of the vital, next of the mental, and last of the motive nature. To begin with, it may be said that any one who has watched movements that are distinctively instinctive and unconscious, like those of children at play when no one is present to overawe or criticise them, will recognize what is meant when it is affirmed that all their methods of expression have a tendency to assume the free, unconstrained, graceful forms that are naturally expressed in curves (Fig. 26, page 60). There is a sense, therefore, in which the vital tendency, when combined with activity, leads to movements as well as to forms that are characterized by roundness.

A very little observation of the same kind will reveal, too, the truth of a counterbalancing statement. This is, that, in the degree in which the mind is in a reflective and conscious state, the movements have a tendency to assume the constrained, awkward forms that are naturally expressed in lines that are the opposite of curves. In the

gesture, for instance, mentality always straightens as well as stiffens the muscles not only of the hands and fingers, which are its chief organs of expression, but also of the arms. The moment that we see these members put into the straight upward, downward, or outward shape of a pointing or an emphatic oratorical gesture, whether made with finger (Fig. 76, page 134), fist, or whole hand (Fig. 75, page 134), or with both hands and legs, as in the case of the man in Fig. 77, page 135, evidently having a hard task in trying to convince others of the truth of his assertions, then we know that it does not give expression to a purely instinctive condition, but to that which is under the control of the reflective powers; we know that the forms assumed are results of an endeavor to interpret thoughts of which the mind is definitely conscious. Mentality has been said to be indicated by sharpness and straightness of form. Evidently, it can be said to be indicated by movements, too, of the same kind, for it is definite thought more than anything else that is indicated by these gestures and postures, aiming or pointing, as they do, with both angularity and straightness of finger, hand, arm, or leg.

FIG. 75.—DOWNWARD CLOSING GESTURE.

See pages 134, 136, 140, 156, 158.

FIG. 76.—SIDEWARD FINGER GESTURE.

See pages 134, 136, 156, 158, 159.

According to what has been said, we should expect the motive tendency to add an element of still greater activity to the mode of expression natural to either the vital or the mental. This activity may express itself through that which pertains more particularly either to the body or to the mind, or to that combination of the two which was said, on page 12, to correspond to what is understood by soul. Activity must manifest itself, evidently, in the degree in which a form of movement causes certain parts of the body to appear to pass through, or to cover, a large part of space. We have found already that length is an indication of activity. Notice, now, that this is true as applied not only to form, but to movement, in fact that it is true of form because of its being true of movement. The long body with its long legs and arms, and, where the latter are short, a long reach of the arms upward, downward, or outward,—these are necessary for an appearance of a great amount of bodily activity, *i. e.*, of movement over a great amount of space. This statement conforms, too, as will be observed, to that already made with reference to the expression of activity through the agency, particularly, of the arms. Notice Fig. 78, page 136, also Fig. 2, page 21.

FIG. 77.—ANGULAR ARGUMENTATIVE MOVEMENTS.

See pages 62, 134.

But from what has been said of the motive tendency, we should expect it not only to add greater activity to the modes of expression natural to the vital and to the

mental, but also, in some way, to combine them. With this thought in mind, notice the construction of the human body, especially of the limbs, and of these, particularly, the legs, arms, and hands, which, as has been pointed out, are, in a peculiar sense, the organs of motive expression. Observe how perfectly these are fitted to combine all the possibilities of the curve, representing the vital; and of the straight and angular, representing the mental. They can represent these because they have not only length but joints. Expression by means of joints always necessitates angles. But these, when slight, do not appear to be angles so much as curves. Joints, therefore, furnish that which enables the body, in connection with straight lines, to manifest both curves and angles, and thus to combine both instinctive and reflective expression. But when these are combined, we might infer, for reasons given on page 11, that we should have emotive expression. A glance at men's actual movements will confirm by facts the accuracy of this inference. With a little emotion, instinctive rather than reflective in its source, the angles of the arms and hands, as indeed of the whole body, are so slight that all seem to be curves (see Fig. 20, page 48, also Fig. 34, page 71). With a little emotion, mainly of a reflective kind, the arms hang straight at the sides, or are so disposed as to have an effect of straightness in connection with curves (see Fig. 79, also Figs. 75 and 76, page 134). With much emotion, whether

FIG. 78.
DANCING MOVEMENTS.
See pages 130, 135, 142.

its source be instinctive or reflective, every movement becomes more or less angular as well as curved (see Figs. 73, page 132, and 39, page 79). It need scarcely be pointed out now that to associate the expression of the instinctive, the reflective, and the emotive, respectively, with the curve, the straight line in connection with the angular, and the combination of all, is to reach a result in exact conformity with the principles stated on page 61.

FIG. 79.—A NEW GUINEA CHIEF.
See pages 136, 138.

We shall not have done with this part of our subject, however, till it has been shown what phase of activity in the movements involves a representation of that emotive condition, which, on page 113, was said to be moral in character. Of course it must be a phase in which physical tendencies seem to be subordinated to mental. We have found that the former show themselves in curves, and the latter in straight and angular lines. Now what must happen when both tendencies act, yet the latter control?—when the curves remain, yet seem used by that which can make them straight?—what but this? All the

muscles of the limbs, whatever forms they may assume, become rigid. Slight mental control is sometimes manifested by as great a variety of angles as great mental control; but in the former, the muscles are limp (Fig. 88, page 147), in the latter they are always tense (Fig. 84, page 145).

It is seldom, therefore, that the actor or orator, except when intentionally depicting weakness, fails to keep command of the muscles in every part of his frame. At the same time, he tries to accommodate his actions to the requirements of curvature as well as of straightness, knowing that while strength of thought, as indicated by the latter, is a virtue, unyielding strength of this kind, with no suggestion of geniality of nature or of sympathy with what is outside of oneself, is as ungracious as it is ungraceful. The ordinary position in oratory, consciously assumed and by tense muscles too, is that of the compound curve. This, as distinguished from the simple curve, is one, the different parts of which point in different directions. As manifested by the pose of the whole body, for instance, the limbs as far up as the hips would point in one direction, the trunk, as far as the shoulders, in another direction, and the shoulders and head again in the direction of the lower limbs (see Figs. 79, page 137; 28, page 62; and 38, page 77). As manifested by the positions assumed by the arms and hands, the part of the arm above the elbow would, when making the opening gesture (see page 156), be bent in one direction, the part below the elbow in another direction, while the hand from the wrist downward would be bent in the same direction as the arm above the elbow. Notice this curve, in both gestures of the man in Fig. 27, page 61, in the gesture in Fig. 97, page 159, and, as very well made, in the high

FIG. 80.—THE WOMAN TAKEN IN ADULTERY. N. POUSSIN.

See pages 129, 140, 155, 158, 161, 168, 174, 186, 276, 287.

gesture in Fig. 82, page 143. On the contrary, in making the closing gesture (see page 156), the elbow is not bent, the effect of the compound curve in this case being produced best when the arm is straight, as in Fig. 75, page 134. If the elbow be bent, the effect is that of a single curve, as in the weak gesture represented in Fig. 72, page 132. The compound curve, as used both in the pose of the body and in the arm gesture, seems to be the one which best satisfies the requirements of beauty, and, not only so, but also, apparently for the same reason the one which, by preserving the balance of the members, satisfies best also the requirements of strength. In the arm, this curve appears especially important, inasmuch as the slight bend at the elbow prevents the gesturer from seeming to strike beyond his reach, and thus augments the appearance of force, as well as of grace, imparted by the visible blow. As influenced by the motive inspiring it, *i. e.*, by the condition of the emotive nature, this slight bend in the ideal pose and gesture becomes straighter and stiffer in the degree in which the only consideration is truth which the gesturer, in an upright and downright way, is trying to lay before us. Notice both hands of the Christ in Fig. 80, page 139. But this consideration is itself often very closely connected with sufficient interest to stir the emotions; and in the degree in which these become profoundly moved, they are no longer satisfied to persuade us with gentle curves or to pound thought into us with straight aimed lines (notice the figures at the left of the Christ in Fig. 80, page 139); but they excite our memories and imaginations by adding all sorts of graphic and dramatic effects through the use of angles. Notice the figures at the right and left in Fig. 80; also in Fig. 39, page 79.

CHAPTER IX.

REPRESENTATION THROUGH PARTICULAR GESTURES OF THE TORSO AND LIMBS.

Complex Nature of the Subjects to be Treated and the Order in which they will be Considered—Different Parts of the Body as Imparting a Peculiar Phase to Emphasis—Vital *versus* Mental Movements of the Body in General Illustrating this: Those Mainly Physical of the Lower Torso—Of the Lower Limbs—Mainly Mental of the Hands and Head with Upper Torso—Mainly Emotive of the Upper Torso with Shoulders and Arms—Mental or Interpretive Movements of the Hands—The Place in the Physical Sphere in which the Hand is Held: Horizontal Extension—Vertical, Downward, and Upward Extension—Meaning of Gestures as Determined by their Physical Relations, as About, Below, or Above the Breast—Indicative not of Actual so much as Conceived Relations—Interpretive Shapes Assumed by the Hand—Physical Suggestions of the Fist—Mental of the Fingers—Emotive of the Palm—Closing Gesture with Averted Palm—Opening Gesture with the Opposite—Motive Expression in the Methods of Managing the Arms—Movement from and toward the Body and in Both Ways.

THUS far we have been observing the general principles of representation through the human form. Now we have to notice the methods of applying them in particular representative emergencies. Of course, this task involves a somewhat complex view of each phase of the subject, inasmuch as elements of expression hitherto considered as operating apart, must now be considered as operating together. But by following the same general order of treatment as has been pursued up to this point, it is hoped that the whole subject may be made to appear

clear. This order will lead us to begin by noticing the more physical movements as distinguished from those that are more mental. As the latter, according to what was said in page 112, are the distinctively interpretive gestures of the hands and head, our object will be sufficiently attained by considering, first, as distinguished from these two, the other parts of the body. It is in them evidently that we find the most physical movements, and, in connection with them, as follows from what has been said already, the movements that are most likely to convey impressions of the instinctive, the unconscious, the graceful, and, in fact, of everything naturally accompanying vitality.

FIG. 81.—DISCOMFORT IN THE ABDOMEN.

See pages 142, 162.

Carrying to its logical conclusions a phase of thought already many times suggested, let us begin by noticing the natural inference brought out by Delsarte, that prominence given to any part of the body by gestures made with them or to them by the use of the hands, feet, or head, as indicated on pages 126 to 128, gives to an expression the phase of emphasis represented by that part of the body. Thus movements of or to the abdomen (Fig. 81, page 142) or hips, as in certain dances (Fig. 78, page 136), give a physical phase of emphasis; movements of or to the hands or the head give a mental or reflective phase of emphasis, interpreting it and rendering it intelligible (see page 112, also Figs. 69, page 129, and 70, page 131). Movements of or to the breast again give a motive, or sometimes, as has been said, a higher emotive or moral phase of emphasis (see Fig. 38, page 77, also Fig. 82, page 143).

FIG. 82.—THE RESURRECTION. T. N. MACLEAN.

See pages 140, 142, 147, 151, 152, 160, 161, 162, 167, 174, 286.

To refer in this place to any large number of the many possible movements of the body illustrating these statements would unwarrantably extend this part of our subject. Suffice it to say that there is hardly a conceivable pose which the principles involved in them, in connection with what has been said hitherto, cannot explain, if only one be willing to expend a little thought in trying to interpret it.

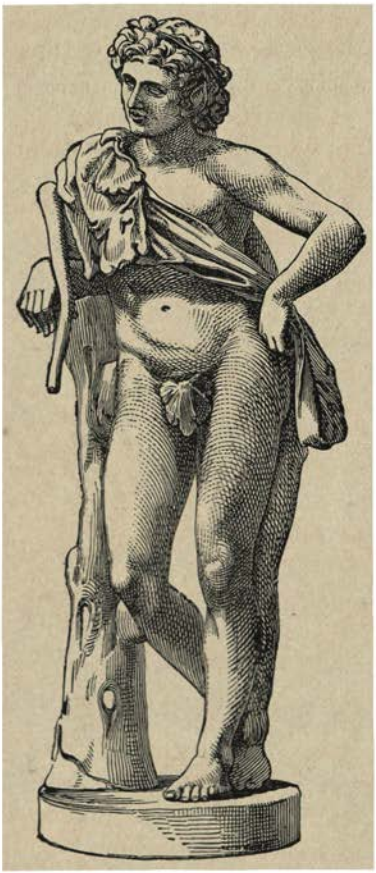


FIG. 83.—THE FAUN OF PRAXITELES.

See pages 61, 141, 147, 282.

Recalling what has been said of the instinctive nature of movements outward and upward, the reflective nature of the contrary movements, and the emotive nature of side or oblique movements in either direction, we shall recognize that if the torso, the seat of vitality, lean slightly forward or to one side, with the aid of hips, knees, and ankles, all these in an instinctive way contribute merely to the gracefulness and geniality which we associate with healthful and, often, for this reason, good-natured vitality (Fig. 83, page 144). The same part of the body sway-

ing from side to side, accentuates by action the same impression. Twisting, it indicates a little more conflict between feeling and thought, but with much indecision and impotence with reference to surroundings (Fig. 85, page 146). Drawn backward, it indicates something that checks by thought the instinctive promptings (Fig. 89, page 148). If drawn back obliquely, it indicates a plot to get the better of one who is thus opposed (Fig. 73, page 132). Thrust forward, in the same oblique way, it shows that conflict with him has begun (Fig. 74, page 132); and when, in either position, hips, knees, and ankles cause all the limbs to be out of line with the vertical, they show the sharpness of nervous excitation (Fig. 39, page 79), and, where this assumes an active form, excitation intelligently embodying itself in physical force (Fig. 31, page 65). Held erect again, the torso and lower limbs, increasing, as all do when used together, the impression of length, manifest vitality used for moral effect (Figs. 58, page 104, 71, page 132, 84, page 145).

FIG. 84.—LENGTH FOR MORAL EFFECT. See pages 62, 138, 145, 152.

Glancing now at the lower limbs, the man who stands on one leg and rests with the other—and especially if he let this dangle or hang loosely,—has divided into two parts the expression of vitality, pure and simple. One half of it is pointing to the source of activity or the emotive, in case his free knee be thrust into prominence, and to the source of intelligence in case his free foot. (Fig. 85, page 146). The man who sits, crossing his legs near the knee, letting one foot hang loosely has subordinated his vital nature to the emotive (Fig. 86, page

146). But if he bring the foot up in a line horizontal with the knee on which it rests, and begin with his hands to rub and pat his lower limbs, even his mentality has been pressed into service to aid the emotively vital nature of his expression (Fig. 87, page 146). The straddle and the stride are caricatures of the parallelism of the straight line, which straight line, as has been indicated, is usually representative of reflective self-control. So, though the

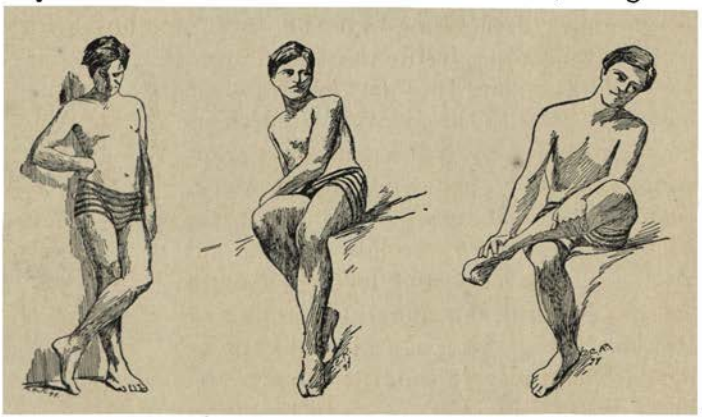


FIG. 85.—EXPRESSION WITH THE FOOT.
See pages 130, 145.

FIG. 86.—EXPRESSION WITH THE FOOT AND LEG.
See page 145.

FIG. 87.—EXPRESSION WITH THE FOOT AND KNEE.
See page 146.

one who assumes them may imagine that they are morally strong, we merely laugh at him.

The order in which we are to consider the parts of the body obliges us to postpone noticing the manifestations of the conditions of thought through the use of the hands and head, until after ending what is to be said of the rest of the form. Accordingly these two need mention here merely so far as they are used conjointly with other members. It has been said, for instance, that the lower torso is the

seat of the vital and physical, and the upper of the emotive and moral nature. This distinction may enable us to gauge the controlling motive. See the position of the drunkard in Fig. 88, page 147, also of the man in Fig. 27, page 61. In Fig. 83, page 144, the side emphasis of the hips is evenly balanced by the forward inclination of the chest. This Faun, therefore, has, at least, some soul. But in Fig. 28, page 62, only the higher emotive nature is made prominent. Sometimes both the upper and lower torso may unite in an instinctive movement forward or toward an object of desire or affection. But the moment that reflection begins to have any influence upon the instinctive feelings, self-conscious modesty, timidity, or caution will draw the torso backward. If, then, the influence be exerted upon the instinctive feelings alone, a counter forward movement on the part of the head (Fig. 89, page 148) or eyes or hands will interpret the secret which the heart keeps hid (Fig. 91, page 149). So if it be chiefly the thought that is thus influenced, it will be the head that is thrust forward (see Fig. 90, page 148, also a man at the left in Fig. 39, page 79) or drawn backward (see the head of the Judas in Fig. 92, page 150). If in connection with the torso thrust forward, the head be held back, this indicates that thought is not yet in a mood to commit itself entirely, but is merely weighing that to which desire impels (see the man in Fig. 27, page 61). The head held violently back indicates plotting and scheming, as in Fig. 31, page 65, also the Judas in Fig. 92, page 150.

FIG. 88.—EXPRESSION WITH THE HIPS.

See pages 138, 147.

The breast, shoulders, and arms, so far as the latter can be considered otherwise than in connection with the hand gestures, represent, for reasons that have been given, the condition of that emotive influence which furnishes the motive for action, and, if having to do with conduct, for moral or immoral action. If the breast swell gently, but visibly in and out more than is necessary for breathing; or lean toward an object (notice the John in Fig. 92, page 150) or away from it (notice the Judas in the same figure); or if the shoulders move forward and upward (Fig. 91, page 149), or backward and downward (Fig. 89, page 148); or if the elbows and wrists make similar movements, even no more than the curves that they naturally use in walking, all these movements indicate the instinctive promptings of the emotive nature.

FIG. 89.
WALKING WITH UPPER CHEST AND BROW IN ADVANCE.

See pages 145, 147, 148, 169, 172.

FIG. 90.
WALKING WITH FACE IN ADVANCE.

See pages 148, 167, 171.

In the degree in which such movements are intense (Fig. 91, page 149), they represent a desire to possess or to be possessed by some person or thing; and, in connection with this, they indicate that the emotive nature is influenced in accordance with a conscious mental purpose. The same parts of the frame heaved rapidly, rigidly, and angularly in the same directions (Figs. 73 and 74, page 132) indicate that the emotive nature is under the influence of

both mentality and great excitement. But, for a contrary reason, the same parts of the frame held in a straight upright position indicate that they are under the sway of that intelligent self-control which results when one feels the dignity and seriousness of life and its responsibilities. They represent emotions used or influenced in a good sense morally (Fig. 93, page 151, and Fig. 28, page 62).

We pass on now to the interpretive movements of the hands and face, taking first the former, both because they are more closely allied to the physical, and, because, when understood, they render those of the face more easy to explain. Here we shall follow an order of thought corresponding in general to that already pursued, by considering, first, the place, as we might say, in the physical sphere, *about*, *below*, or *above* the breast, from which the effect of the gesture when struck is produced; second, the shape of the hand, distinctively interpretive in its nature, which is assumed at the stroke of the gesture; and, lastly, the movement of the hand toward the body or away from it as it is conveyed by the arms to the place where the stroke is made.

FIG. 91.—FAITH, HOPE, AND LOVE.

See pages 147, 148, 151, 162, 169.

With reference to this place, which, as has been said, we are to consider first, notice that it may extend the physical sphere of the man, to those standing in front of

FIG. 92.—JUDAS, PETER, AND JOHN, FROM THE LAST SUPPER OF LEONARDO DA VINCI.

See pages 147, 148, 158, 167, 169, 173, 287.

him, either horizontally or vertically. Horizontal movements, *i. e.*, those at the sides, whether made in connection with downward or upward directions of the arms, make

this sphere seem broader. Breadth, as we have found, is the test of vital measurement. These horizontal movements, therefore, indicate one's relation to other persons or things on the plane of life. It follows from this that movements which extend to the greatest distance at the sides, refer to subjects which are conceived to be inclusive of considerations at the greatest distance physically, and hence too, sometimes, by way of analogy, mentally and morally, from the person making the movements. They refer, therefore, to the comprehensive, the broad, the abstract, the general (see Fig. 28, page 62; also Figs. 97, page 159, and 98, page 160). As from this position they gradually approach the body, their significance changes by degrees until they are made directly in front, as when one strikes up and down with his finger; or clasps the hands together or points to the breast. Then they refer to what is conceived to be relatively non-comprehensive, either because that to which they refer is in itself of only narrow importance, as when the finger is used playfully or in stigmatizing (see Fig. 94, page 152); or, if it be more important, is so only because of some concrete example or specific application (see Figs. 82, page 143, and 91, page 149); or has been so thoroughly studied and analyzed that a man feels that it has become exclusively his own (see the author in Fig. 29, page 63).

FIG. 93.—WALKING UPRIGHT.

See pages 149, 169.

If, in the gesture, the hands be carried so as to extend the sphere of the man vertically, they increase, when held forward, which is usually the case in connection with the

emphatic downward gesture, what by analogy we may term the effects of sharpness (notice again the author in Fig. 29, page 63). If the hands be extended above the head, as in the upward gesture, they increase the effects of length (see Figs. 2, page 21, 71, page 132, 82, page

FIG. 94.—ADDING INSULT TO INJURY. GAETANO CHIERICI.

See pages 151, 156, 263.

143, and 84, page 145). These facts suggest a correspondence sufficient for our general purpose between the downward gesture and the expression of the mental nature and the upward and the expression of the moral or higher emotive nature.

Combining now, as is always done in practice, the effects of the horizontal and the vertical directions, but with main reference still to the latter, we may say that there are three planes in which the stroke of a gesture may be made. One is *on a level* with the breast, which is the seat of the motive or emotive nature, or, as we may say (see page 12), of the soul. One is *below* it, and one is *above* it. The principle underlying the phase of thought represented by the hand, when carried to either of the three planes, is as follows: Every soul inside of a body conceives of itself as at the centre of the universe, which the horizon rims, the earth grounds, and the zenith domes. Every man, even the least egotistic, is compelled to think that not only the world but the universe revolves around himself. Perhaps he is right—who knows? If God be really in that fourth dimension within us, and the human soul be really a focus in which the rays from earth and heaven meet and blend, how far is this from the truth? But whether right or wrong, a man cannot rid himself of this conception. When he gestures, he cannot do otherwise than give expression to it. His hands are carried *on a level* with the breast to represent what he conceives to be on a physical, and hence, by analogy, a mental or moral level with himself. They move *before* him to indicate that which he really sees there, or to refer ideally to the truth or hope that he anticipates in the future. They move *behind* him to indicate that which is really behind him, something that he has abandoned or turned from possibly with loathing or regret; or they may refer ideally to a condition of opinion and life beyond which he has progressed. They move *to one side* to refer to some actual physical presence there, or, ideally, if the gesture indicate exclusion, to something that is a side issue from

the main line of thought; possibly to some course that is a diversion from straight-forward action. But if the gesture indicate inclusion, it refers to the general and comprehensive. The hands are carried *below* the breast to represent that which one conceives to be physically mentally, or morally below himself; *i. e.*, below his sight, comprehension, or control; to indicate a pathway, an idea that he can understand, a power that he can master. They are carried *above* the breast to represent that which he conceives to be physically, mentally, or morally above himself; above his sight, conception, or control; to indicate a star, a grand idea, a mighty force.

In applying these principles, it must always be borne in mind that the different directions taken by the gesture represent not what actually is, but what a man conceives to be. Most of the published discussions of this subject do not sufficiently emphasize this fact. We are told, for instance, that good and God must receive upward gestures, and bad and the Devil downward gestures. But this depends entirely upon one's point of view, upon his conception. The expression, "Get thee behind me, Satan," would require a downward and backward gesture, because the speaker would conceive of Satan as below and behind himself morally; but the expression:

> There was a Brutus once that would have brooked
> The Eternal Devil to keep his state in Rome
> As easily as a king—
>
> *Shakespeare: Julius Cæsar*, i., 2.

would require an upward and forward gesture, because in it Satan is conceived of as a foe of overwhelming force, whom one is facing, therefore as one physically above and before the speaker, and not by any means below or behind him.

Now let us consider the shapes assumed by the hand in the place where the gesture is struck. There may be said to be three of these shapes, namely, that of the fist, of the finger, and of the exposed palm. These all seem to interpret the gesture mentally by adding significance to its mode of emphasis. We shall find that they represent, respectively, vital, *i. e.*, physical emphasis, showing the influence of will; mental emphasis, showing the influence of thought; and motive emphasis, showing the influence of emotion. In appearance, too, they correspond in broadness, sharpness, and length to the forms already found to represent corresponding conceptions.

Of the truth of these statements there can be no doubt in the mind of one who thinks of them. All must recognize that the fist, the broadest, *roundest* form that the hand can assume, represents, as nearly as any shape possible for it, vital and physical emphasis, will-power applied to the impression of ideas. Just as a fist threatens with a power greater than one's own, if held above one's head; and with one's own power, if held on a level with one's breast, so it manifests strength of conviction and a determination to pound the truth into an opponent, if made in connection with a downward gesture of emphasis.

Equally evident is the meaning of the pointing finger. It is the *sharpest* form that the hand can assume, and, according to what has been said, should represent interpretive mentality. This it undoubtedly does. When we point to an object, we do so not as an exhibition of will or emotion, but of thought. Nor do we wish others to do anything beyond concentrating their thought upon it. This is certainly true of the finger gesture wherever used descriptively, whether it point downward (see two figures in Fig. 80, page 139), upward (see one figure in Fig. 39,

page 79), to the front (see the boy in Fig. 94, page 152), or to one side (see Fig. 76, page 134). This is true even when made with all but the forefinger clinched into an unmistakable fist. This fist merely causes the gesture to stigmatize and denounce with a more physical and forcible effect. When used as a gesture of emphasis, too, the finger means the same. It directs attention to the small, delicate, and subtle points of conceptions, arguments, or series of facts upon which the speaker wishes to concentrate not the energies or emotions of himself or his audience, but their powers of analytic thought. Notice the author in Fig. 29, page 63; also two figures at the right of Fig. 39, page 79. In Fig. 69, page 129, the finger on the chin indicates that the man has analyzed sufficiently to understand exactly what course of action his will is to choose or reject. All the fingers on the brow in Fig. 70, page 131, indicate a general state of confusion with reference to the thought that is being considered.

Last of all, we have the gesture with the fingers and thumb unfolded from the palm, and displaying all their length. According to the principles to which reference has already been made so often, this shape ought to represent the motive or emotive attitude. The moment that we examine closely the way in which the gesture is used, we cannot doubt that this is precisely what it does represent. There are two forms of it, namely, the *closing*, in which the palm is averted, *i. e.*, turned away from the body, where the speaker cannot see it, as in Figs. 95, page 157, 71, 72, page 132, and 75, page 134; and the *opening*, in which the position is reversed, where the palm is held so that the speaker can see it, as in Figs. 96, 97, page 159, and 98, page 160. The closing gesture seems to push downward, upward, backward, forward or side-

157 FIG. 95.—CAIN BY GIOVANNI DUPRÉ.

See pages 156, 158, 281.

ward, as if to keep all external things or thoughts from touching or influencing the one who is gesturing. It seems to *close* all channels of communication between him and the outside world. Notice how the left hand of the Christ in Fig. 80, page 139, seems to separate him from the woman before him. The opening gesture seems prepared to give and receive things or thoughts from every quarter; and thus to open these channels. Notice the right hand of the Christ in the same Fig. 80, page 139. Both gestures, therefore, seem to represent the motive or emotive attitude.

To extend what has been said, the closing gesture, being used to reject (Fig. 75, page 134), to ward off (Fig. 74, page 132), to deny (Fig. 75, page 134), what is unpleasant (Fig. 72, page 132), threatening (Fig. 95, page 157), or untruthful (notice the man at the right in Fig. 39, page 79), is used descriptively to refer to anything having these characteristics, to anything, therefore, like a storm, an avalanche, a disgusting sight, a foe, or any supposed source of plotting or hostility (see Fig. 95, page 157). For an analogous reason, as applied to abstract thought, it is naturally used by one who is in a mood to dogmatize, to dictate (see the hands of two men standing at the right behind the ox in Fig. 164, page 279), or to express any conception, concerning which he is not in a condition to receive suggestions from others. Notice the left hand of Judas in Fig. 92, page 150; also the finger gesture in Fig. 76, page 134. It indicates, therefore, everything which one does not care to submit to others as an open question, a question left for them to decide. In accordance with what was said in the last paragraph, it closes the channel of influence, as this comes from others, and seems to say, simply: "This is my opinion. I hold it irrespective of

anything that you may hold." Derived from this expressional use of the gesture, is a secondary descriptive use of it, according to which it is made to refer to anything which the mind cannot conceive to be an open question for others to think of as they choose, therefore to anything which, if thought of at all, must be thought of in only one way. Thus "impending fate," or "the laws controlling the universe," would be indicated by high closing gestures. Closing gestures, too, would be used when referring to any object that to the mind's eye has definite outlines, like a cliff, or house. If objects like this be small, the finger usually points to them, but the youngest child never points to a thing that has definite outlines with the palm up. It is always down. It is not an open question how one shall conceive of a particular horse or dog: and so the closing gesture with the index finger, shuts out all appeal. The mind of the speaker cannot be satisfied unless the hearer conceives of these objects just as he does (see Fig. 76, page 134).

FIG. 96.—DOWNWARD OPENING GESTURE.
See pages 156, 160.

FIG. 97.—SIDEWARD DESCRIPTIVE OPENING GESTURE.
See pages 138, 151, 156, 160.

The opening gesture indicates exactly the opposite. Being used to welcome or impart what is pleasant, inter-

esting or important, it naturally refers, in a descriptive way, to any thing or thought having these characteristics, to anything conceived of, therefore, as being freely given (see the man in Fig. 27, page 61) or received like a gift or purchase, or like friendship, joy, knowledge, prosperity, or blessedness (see the right hand in Fig. 82, page 143). As accompanying an expression of abstract thought, it evidently is in place whenever one submits an opinion as an open question for others to consider and decide as they may deem fit. It is the gesture, therefore of inquiry, persuasion, and appeal (Fig. 96, page 159). "They should be put to death," uttered with the closing gesture, means: "This is my opinion, and I hold it irrespective of anything that you may think about it." The same words, uttered with the opening gesture, mean: "This is my opinion; do you not, should you not, in view of all the arguments that I have used, agree with me?" Derived from this expressional use of the opening gesture, is a secondary descriptive use of it, causing it to refer to anything of a doubtful, indefinite nature, which it is an open question for others to think of as they choose. It would be used in mentioning a "smiling country," or a "sunny landscape" (Fig. 97, page 159). In conceiving of these, the speaker does not have in mind, nor does he wish the hearer to have in mind, any fixed or definite object. Imagination can fill in the outlines as it chooses, and the gesture indicates this fact. So "liberty," "progress," and "blessedness" receive the high opening ges-

FIG. 98.—UPWARD OPENING GESTURE.
See pages 151, 161.

ture, partly because they are always welcome, yet partly, too, because the results of them may manifest any one of a thousand different effects, which the mind of the listener is left free to conjure according to his fancy (Fig. 98, page 160; see also Fig. 82, page 143). The benediction after religious services in church, as given with the closing gestures, corresponding to the position in Fig. 71, page 132, is ritualistic. It imparts constraining grace. As given with the opening gesture, corresponding to the position in Fig. 98, page 160, it is evangelical. It solicits inspiring grace. So the hand of the woman accepting the offer of marriage in Fig. 27, page 61, not only indicates embarrassment, as said on page 61. It also imparts, without intention, the information that she is the one who will not yield, but will rule and dictate when the wedding has been consummated. The pointing finger, too, when the palm is in the position of an open gesture, does not mean the same as when it is in the position of the closing gesture. In the former case it does not point merely to definite objects; it points to open possibilities. What is uppermost in the mind of the man at the left of the Christ in Fig. 80, page 139, is to ask a question, "What shall be done in view of that to which I point? What is uppermost in the mind of the man pointing upward at the right of Fig. 39, page 79, is to indicate a source from which one can receive inspiration; and he is beckoning—asking others to consider it. The motive is thus that of the opening gesture.

A few sentences more will embody all that needs to be added with reference to the meanings of the movements of the hand while being conveyed by the arm to the place towards which the gesture is aimed. All these movements, of course, as follows from what has been said,

whether suggesting forms of curves, straight lines, or angles, give expression, in a general way, to the motive or emotive nature; the degrees of vitality entering into this being best indicated by the action of the shoulders (see Fig. 91, page 149); the degrees of interpretive intent, by the adjustments of the wrist and the hand and fingers below it (See Fig. 82, page 143); and the degrees of the operating motive pure and simple by the action of the elbows (Notice the hints of this always conveyed by their nudge).

These movements, moreover, by which are meant now those that are preparatory to the gesture, irrespective of the place to which the hand is conveyed, may be made with a general direction away from the body, toward the body; or both away from it and also toward it. When used descriptively, they refer, respectively to other things than self (notice the right hand in Fig. 82, page 143), to self (notice the left hand in Fig. 82), or to both; *i. e.* to the relations between other things and self. Used mainly for emphasis, the hands, when moving away from the body, represent a full, unembarrassed and, in this sense, instinctive expression of the actuating motive. They indicate, like the falling inflection of the voice, that the mind has come to a positive and decisive conclusion. When the hands move toward the body (see page 129), the gestures are reflective; and represent something in thought that checks the expression of the motive, something physical in phase, if they end near the abdomen (Fig. 81, page 142), mental if near the head (Fig. 69, page 129), and emotional or moral if near the heart (Fig. 82, page 143). They indicate, like the rising inflection of the voice, that the mind is thinking but has come to no conclusion; that it is asking a question; that it is influenced by doubt,

perhaps, or surprise (notice the representation of this in Fig. 99, page 163); the mood is, at least, anticipative and indecisive. When the hands move both from the body and also toward it as in Fig. 99, or, as is the case in the most common emphatic oratorical gesture, both toward it and from it, they represent a combination of the two conceptions already mentioned. The effect then is exactly parallel to that of the circumflex inflection (see "Orator's Manual," pp. 56–59). If the gestures begin with the movement toward the body, this indicates that the man has asked a question; and if they end with the movement away from it, that, in his own mind, as a result of due examination and a consideration of arguments *pro* and *con*, he has answered the question. The first direction shows that there has been indecision, the second that he has come to a conclusion; the first that he has investigated, the second that he has reached a definite result. The suggestion of both facts in this gesture causes it to convey an impression of breadth of thought as well as of intensity.

FIG. 99.—BOY SURPRISED.
See pages 130, 163, 171.

If the order of the movements be reversed, as often in dramatic gestures (Fig. 99, page 163), of course their meaning is reversed. But whatever be their order, it is evident that movements preparatory to starting the final stroke of a gesture, in the degree in which they are continued through a long time or cover a large space, enhance

the representative effect, inasmuch as they indicate thus the degree in which the mind has reached the opinion which it expresses as a result of weighing the possibilities both in favor of this opinion and against it.

For further suggestions with reference to this subject, especially as applied to oratory, the reader is referred to the interpretations of the meanings of the movements described by the arms when preparing for the gestures, as well as to the explanations of the methods of making them, and of learning to make them, which are detailed in full in the author's " Orator's Manual."

CHAPTER X.

REPRESENTATION THROUGH POSITIONS AND MOVEMENTS OF THE HEAD AND FACE.

Correspondencies between Gestures of the Head and of the Rest of the Body —Physical Movements of the Head toward or from Objects or Persons, Directly, Sideward, or Obliquely—Phases of Mentality Suggested by its Different Parts—Illustrations of how these Parts Operate in Connection with the Movements—Complicated Nature of Expression by Movements of the Head, Eyes, and Facial Muscles—Meaning of Movements or Positions of the Head Forward with the Eyes Looking on a Level—With the Eyes Looking Downward—Or Upward—Meaning of Movements or Positions of the Head Backward with the Eyes Looking on a Level—With the Eyes Looking Downward—Or Upward—Meaning of Normal Positions of the Head—Difficulty of Distinguishing between these Different Movements or Positions—Facial Expression Corresponding to Shapes Assumed by the Fingers in Hand Gestures——Rigid Physical Effects like those of the Fist with Mouth, Brows and Nose—Mental Effects of Concentration, like those of the Finger—Emotive Effects as in the Closing and Opening Gestures, through Using Muscles of the Mouth—The Eyebrows—The Eyes—The Nostrils—Outline Diagrams of Different Effects—Comic Effects.

THE gestures of the head involve many different elements, which can be understood most readily, perhaps, if we begin by noticing the ways in which their various effects correspond to certain of those already considered. Of course, the entire head has to do with the representation of mentality; but different phases of emphasis are imparted in connection with this. The movements of the whole

head, as produced by the neck, must manifest merely a more mental phase of the kind of emphasis produced by movements with other parts of the body. With this understanding, it will be recognized that, according to what was said on page 129, the movement forward is vital, the movement backward is mental, the movement sideward (see page 151), oblique or rotary is emotive, and, often, as in denying or threatening, emotively unsympathetic. But besides these movements of the whole head we have what is termed facial expression, imparting phases of emphasis far more distinctively interpretive of mental processes. The factors entering into facial expression, too, can be analyzed. They are, first, the glances of the eye in a forward, sideward, downward, or upward direction. These indicate the outlook, and correspond to the effects produced by the hand when, as carried by the arms, it is aimed in similar directions. Next are to be noticed the adjustments of the muscles of the countenance. These, as we shall find, correspond to the distinctively interpretive adjustments of palm, thumb, and fingers; and in a very general way, it may be said that the contraction of all the muscles corresponds to the fist gesture; of the same horizontally, as between the eyes and in the nostrils and lips, to the finger gesture; of the same vertically, as in lowering brows and compressed lips, to the closing gesture; and the relaxing of the muscles to the opening gesture. Lastly, here as elsewhere in the body, active combinations of the other two methods of expression, through the eye and facial muscles, produce special effects of their own.

Beginning with the head as a whole, it is well to notice, first, that, in accordance with what was said on page 129, a general forward movement toward an object or person indicates mentality when most under control of instinctive

(notice the slight mental force in Fig. 100, page 167, also the Peter in Fig. 92, page 150), vital, (Fig. 90, page 148), physical, and in this sense objective (Fig. 73, page 132), or sometimes aggressive promptings (Fig. 31, page 65). A general backward movement away from an object or person indicates the contrary, *i. e.*, reflective and so contemplative (Fig. 101, page 169), cautious (notice the Judas in Fig. 92, page 150), or unaggressive prompting, as in the figures to the left of Ananias in Fig. 39, page 79. A general sideward movement, as in the John in Fig. 92, page 150, also in Figs. 82, page 143; 112, page 176; 114, page 177, and 117, page 177, indicates an emotive influence, a conciousness of the relation of the subject of consideration to persons surrounding one. Movements both forward and sideward, or oblique, indicate a combination of the vital and emotive; and movements both backward and sideward, a combination of the reflective and emotive. But in either form oblique movements, if accompanied by hostile facial expressions, menace either vitally or mentally in the strongest way (Figs. 73, page 132, and 74, page 132).

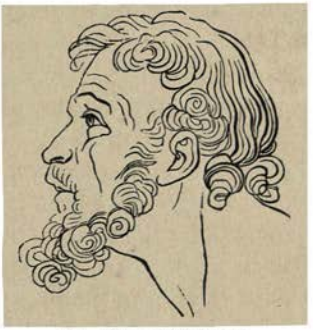


FIG. 100.—CREDULITY.
See pages 167, 168, 171, 174.

Closely connected with these physical effects of the head are the different phases of mentality represented in its different parts or features. According to phrenology and physiognomy, as we have found, its lower back and sides and the lower jaw reveal the most with reference to the vital or physical tendencies (see Fig. 61, page 115);

the region about the forehead, temples, and eyes, the most with reference to that which is purely mental; and the middle region of the crown, and of the face, including the nose, the most with reference to that which is emotive in the highest sense, or moral. Whatever, therefore, gives prominence to any of these parts by thrusting them forward, gives prominence to the associations connected with them. Notice on page 129 what is said of Figs. 70, page 131, and 80, page 139. Of course, if the parts be deficient in size or shape, the effect produced by them will be lessened in degree. But it will not be changed in character. It needs to be borne in mind, however, that, in connection with each possible position of the head or eyes, there may be a conception of what is pleasurable or unpleasurable. Precisely the same position of the head and direction of the eye may represent both faith and fear. Which of the two it is can be interpreted only by the facial muscles. Again, too, it must be borne in mind that all the effects that we are to consider are produced by way of contrast. A projected forehead, for instance, represents mentality, as contrasted with the vitality which would be represented were the chin projected. But whether the mentality be owing to a presence of thought, or merely to an absence of physical force, must be determined by the expression of the eyes and facial muscles accompanying the position.

The reader will now understand what is meant when it is said that if, in connection with a general forward or aggressive movement of the head toward an object or person, the face be held so that the chin is in advance, this indicates, if not aggressive vitality or physical force (see St. Michael in Fig. 58, page 104), at least unaggressive mentality (Fig. 100, page 167). This is a position often

assumed where a man has waived the exercise of his own thought, in order to listen to what others think, as partly indicated in Fig. 112, page 176. If the face be held so that the forehead is in advance, this indicates if not aggressive mentality (notice the gambler at the left of Fig. 160, page 271) at least, for the time being, unaggressive vitality (Fig. 89, page 148). If the face be held so that, on the whole, neither chin nor forehead, but rather the nose, is in advance, this indicates if not aggressive emotive or moral force, such as we see in the ordinary expression of eagerness (Fig. 91, page 149), at least unaggressive vitality or mentality (Fig. 93, page 151). Corresponding conditions in connection with a general backward and therefore unaggressive movement indicate corresponding tendencies, ending in mental reflection. The slight projection of the chin in Fig. 101, page 169, indicates such reflection with reference to something depending upon the exercise of vital force or will-power. A stronger indication of the same may be seen in the position of the man in Fig. 27, page 61, and of the Judas in Fig. 92, page 150. The slight projection of the forehead of the Napoleon in Fig. 63, page 116, indicates reflection with reference to something depending on the exercise of thought, as does, still more

FIG. 101.—UNYIELDING CONTEMPLATION.
See pages 167, 169, 175.

decidedly, that of the Mephistopheles in Fig. 50, page 99. The positions of the heads of the man and the woman to the left of Ananias in Fig. 39, page 79, indicate, as should be the case in a representation of primitive Christians, that even balance of vital and mental tendencies which characterizes the sway of higher emotive or moral considerations.

It will be recognized at once that expression by means of the positions and movements of the head is complicated. But this will become still more evident when we take into consideration the fact that the suggestions conveyed by the movements of the head before assuming its position, and also by the directions of the glances of the eyes, and by the adjustments of the muscles of the countenance, are often such as to give a radically different meaning from that which would be given by merely one of these methods of expression considered by itself. For this reason, the same desire to present this subject with clearness, which, so far, has led us to treat of each factor of emphasis separately, must lead us here to treat of all the factors when acting in conjunction. The most feasible way of doing this, and of preserving, at the same time, an order of thought approximately similar to that which has been pursued up to this point, seems to be to take the possible movements of the whole head, and notice the modifications of the significance of each of these as imparted by the possible direction of the glances of the eye. Later, we can notice the modifications of significance as imparted by the facial muscles of the lower, higher, and middle parts of the countenance.

To consider, first, combinations of movements of the head and of the eye, we have found that a thrusting of the head *forward*, even if sideward, toward objects or

persons is expressive of vital force or aggressiveness. If, in connection with a non-excited and usually, therefore, a non-hostile expression of countenance, this movement be accompanied by a glance of the eyes neither upward nor downward, but on a level with their outlook, while, too, the chin is in advance, the mode of expression naturally represents a weak, because not mentally aggressive, condition—such as may be noticed in surprise (Fig. 99, page 163), or interrogation (see the credulity in Fig. 100, page 167). In the degree however, in which there is a determined expression of countenance, the suggestion of physical force overbalances that of mental weakness (Fig. 90, page 148), and a hostile expression, especially with a combination of a forward and a sideward movement imparts a physical threat (Fig. 31, page 65). This sideward leaning of the head, as has been said, suggests emotion exercised toward a person. If, then, the eyes look in the same direction as that in which the chin is advanced, which means in an opposite direction from the inclination of the forehead, thought appears to be withheld from the person or his opinions. If the eyebrow be normal, this may represent slight suspicion (Fig. 102, page 171), and if they be knit, strong disapproval or scheming (Fig. 103, page 171). The head thrust forward, the eyes looking forward, and the brow in advance, represents more mental force, as in

FIG. 102.—AMIABLE SUSPICION.

See pages 171, 186.

FIG. 103.—UNAMIABLE SUSPICION.

See pages 171, 177.

intelligent questioning (Fig. 104, page 172), serious doubt or perplexity (Fig. 89, page 148), or strong assertion (see the author in Fig. 29, page 63). The same forward movement of the head and glance of the eye with the head falling slightly, then lifting immediately, as in the ordinary nod, which need not be illustrated, indicates that the man, after considering whether or not there is any necessity of placing himself in an attitude of serious questioning or assertion, has found none. The action therefore expresses his acceptance of existing conditions. It gives assent. A hostile expression of countenance with the head thrust forward, the eye looking forward, and the brow in advance, especially if the movement be sideward, also conveys a more thoughtful and calculating threat than when the chin is in advance (see Fig. 73, page 132). The mere leaning of the head to one side when thus thrust forward with the eyes looking in the same direction in which the brow is advanced, indicates, if the eyebrows be normal and friendly, affection mingled with respect and confidence exercised toward the one toward whom the brow leans (Fig. 105, page 173); but if the eyebrows be knit and hostile, the same position may indicate a menace toward one respected enough to be feared (see the man at the left in Fig. 160, page 271).

FIG. 104.—THOUGHTFUL ATTENTION.
See pages 119, 172, 187.

If, when the head is thrust forward, the eyes look *downward*, the position indicates that the man is conscious of the subject of thought, whether a person or an idea, as

socially, intellectually, or morally below his sight, conception, or control. If then the features of his countenance be restful and non-excited, he is endeavoring to examine, study, or master the subject,—in a weak way, if his chin be in advance (see the man sitting on the table in Fig. 29, page 63), and in a strong way if his brow be in advance (Fig. 106, page 174). But if his facial muscles indicate unpleasant excitation, the position represents, if the chin be in advance, force prepared to resist opposing conditions, which, as the eyes are looking downward, the man feels that he might master, and for tolerating which, therefore, he feels accountable. Notice the uneasy but ambitious face in Fig. 107, page 174. But if the brow be in advance, this indictes a mental apprehension of opposition and difficulty without force for physical resistance. In this case the subjects may be conceived in many different ways, as deeply sorrowful (Fig. 108, page 174), as deeply perplexing (Fig. 109, page 175), as frightful (Fig. 129, page 186), or as dangerous (Fig. 126, page 184). The leaning of the head sideward as well as forward, with the eyes downward, indicates a sympathetic bias. But whether this bias be in favor of a man or against him—especially as the eyes are not always visible—must be made out from the facial expression. Thus the face of the John, in Fig. 92, page 150, indicates love exercised toward Peter; but with reference to a subject conceived to be below sight, conception, or control, and therefore capable of being understood and mastered, if necessary. The leaning of the head of the

FIG. 105.—CONFIDENCE.
See page 172.

woman in Fig. 80, page 139, expresses confidence in the Christ, together with a consciousness of shame in view of conduct which, as it was under her control, she might have avoided.

If, with the head still thrust forward, the eyes look *upward*, one conceives of the subject of thought as socially, intellectually, or morally above his sight, conception, or control. The position in connection with a calm, non-excited expression of countenance indicates, if the chin be in advance, submission, with reference mainly to vital conditions, as in Fig. 82, page 143; if the brow be forward,

FIG. 106.—GALILEO.
See page 173.

FIG. 107.—AMBITION.
See pages 173, 186.

FIG. 108.—HOPELESSNESS.
See pages 173, 186.

mental submission, as in Fig. 110, page 175; also in the kneeling forms in Fig. 35, page 72. The same position, in connection with an excited expression of countenance, indicates enforced submission, causing, if the chin be in advance, either an effect of weak mentality, as in Fig. 100, page 167, or decided physical apprehension, as in Fig. 21, page 49, or that form of this in Fig. 119, page 179, and mental apprehension if the forehead be in advance, as in Fig. 128, page 186. As in all cases in which the head leans to one side, the chin or forehead projected in the same direction as an upward side glance of the eye, suggests an

influence, physical or mental, exerted by others. Notice again Fig. 110, page 175, and Fig. 128, page 186.

Now let us consider the significance of the head and eyes when the former is drawn *backward* or, if sideward, *away from* the object of contemplation. This action, in accordance with what was said on page 129, is mental and reflective. If, when it is made, the eyes gaze *forward*, then, in case the chin be in advance, mere mentality is subordinated to physical considerations (see Fig. 27, page 61), sometimes merely because abstract thought is waived in view of that which, on the physical plane, for the time being, excites interest (Figs. 101, page 169, also 111, page 176), surprises or puzzles (Fig. 112, page 176), or, if the countenance be distorted, horrifies (Fig. 113, page 176), or arouses to intensified rage (Fig. 122, page 181). Because of the reflection suggested in this last face, however, the menace given is less forcible than when the head is thrust forward as in Fig. 73, page 132. According to what has been said before, the leaning of the head to one side, in connection with this same movement, introduces a stronger suggestion of the presence of persons in connection with the presentation of the subject that is being

FIG. 109.—APPREHENSIVE ATTENTION.
See page 173.

FIG. 110.—RELIGIOUS RAPTURE.
See pages 174, 175, 179.

considered. When the chin points in the same direction as the eye, or what is the same thing, when the forehead leans away from the person toward whom one is looking, this indicates that thought is withheld from accord with that of this person on account, perhaps, of pride, as in Fig. 114, page 177, or of slight suspicion, Fig. 111, page 176, or of stubbornness, as in Fig. 112, page 176, or of more malevolent feelings, as in Figs. 50, page 99, and 122, page 181. If with the head held back and the eyes gazing forward, the brow be in advance, there is more emphatic evidence of the influence of thought. Nor does the man conceive either of himself or of the opinion which he happens at the time to hold, as subordinate to any other, although, in the degree in

FIG. 111.—UNCONFIDING ATTENTION.
See pages 175, 176

FIG. 112.—UNCONVINCED ATTENTION.
See pages 167, 169, 175, 176, 178, 185.

FIG. 113.—DESPAIR.
See pages 175, 185.

which the eyes gaze directly at those in front, or at one side, they indicate that this opinion is held by persons in some regards on a social, intellectual, or moral level

with himself (Fig. 63, page 116). The same attitude might indicate, if accompanied by a knit brow, a hostile mood (Fig. 115, page 177), possibly only a suspicious mood

FIG. 114.
UNCONFIDING PRIDE.
See pages 167, 176.

FIG. 115.
MALICE.
See pages 177, 185.

FIG. 116.
SATISFIED CONFIDENCE.
See page 177.

(Fig. 103, page 171), or, if accompanied by a sneer, an egotistic or contemptuous mood (see the man at the right in Fig. 29, page 63), or, if accompanied by a troubled look, an aggrieved or affrighted mood, as in those at the left of Ananias in Fig. 39, page 79.

FIG. 117.—IMPUDENCE.
See pages 167, 178.

If, while the head is held back, the eyes with a satisfied look be directed to one side to a person toward whom the forehead leans, this indicates that thought has a leaning toward that person. It represents confidence, especially in his judgment (Fig. 116, page 177), and, as the head is held back, mental assurance that the confidence is not misplaced. If, however, the eyes have a frightened look, this position may represent the extreme of fear

in view of that to which mentality finds itself obliged to surrender (Fig. 132, page 188).

If with the head held back the eyes gaze *downward*, and the chin be in advance, the man has waived the expenditure of thought upon a subject because he conceives of it as sociably, intellectually, or morally below the level of his sight, comprehension, or control.

The position when very emphatic indicates dissent together with unwillingness to weigh evidence (Fig. 112, page 176); also, to one looking backward too, haughtiness, superciliousness, impudence (Fig. 117, page 177), and, in a hostile countenance, contemptuous rage (Fig. 122, page 181). But if the brow be in advance, it indicates that, while the man still conceives himself to be master of the subject, he is willing to expend his mental energies upon it. Notice the suggestion of moral superiority, though connected with an appeal to reason, in the man making the upward finger gesture in Fig. 39, page 79; also the suggestion of intellectual superiority in the man, who is nevertheless paying attention, at the right in Fig. 29, page 63; and, once more, the malicious confidence in the results of his own plots manifested in the hostile countenance in Fig. 50, page 99.

FIG. 118.—FAITH.
See pages 179, 187.

If, with the head held back and not inclining to either side, the eyes gaze *upward*, the man conceives of the

source of subordination as something above his sight, comprehension, or control. If then his chin be in advance, the position indicates, according to the expression of the other features, that his own mental comprehension or control is waived on account either of faith in a higher power (Fig. 118, page 178), or fear of it (Fig. 119, page 179). If then the face also lean to one side, as it does to an extent in Fig. 118, with the eyes looking upward in the same direction, this may indicate indifference to lower or worldly subjects or persons on account of enthusiastic

FIG. 119.—APPREHENSIVE ASTONISHMENT.
See pages 174, 179, 185.

FIG. 120.—TRIUMPH.
See page 179.

recognition of help from a source higher than ordinarily comes to men, giving an expression of religious rapture as in Fig. 110, page 175; or, aided by emphasis of chin and lower lip, of irreligious triumph, as in Fig. 120, page 179.

The head held back, with the eyes upward and the brow in advance, is an almost impossible position; but there is a suggestion of it in Fig. 63, page 116, and Fig. 121, page 181. In both cases it joins to the conception of higher control, the feeling that this is acting through the man's own mentality. Napoleon is the "man of destiny"; and Fig. 121 hints of one conscious that he himself has been

a co-worker with fate in producing the trouble which has overtaken him.

The head held in its *normal* position, neither thrust forward nor drawn backward, representing, as it does, no bias in the direction either of vital energy or of mental sufficiency, shows supremacy of the motive, higher emotive, or moral nature. In these circumstances, there is sometimes more opportunity for emphasizing the distinctively emotional representations of the sideward movements of the head. Its inclination alternately to one side and then to the other, indicates a balancing between tendencies for or against a person or project, therefore uncertainty; if persistently made, then settled uncertainty or indifference; if flippantly made, then impotence in view of that to which one is indifferent or of things conceived to be trivial. A rotary movement of the head held in any position, seems to have the effect of shaking off influence, or like the closing gesture, of closing the channels of communication between the one who makes it and others. It signifies, if the eyes look toward the person to whom it is made, negation, rejection; and if the eyes and face be turned away from him, it includes, with these, the idea of distrust.

Owing to the difficulty, in certain cases, of distinguishing from one another a forward, a backward, and a normal position of the head considered as a whole, similar impressions are sometimes conveyed by each of them. For this reason, there have been some necessary repetitions in these explanations. But it is hoped that they have been made as few as possible.

Now let us consider the operation of the muscles that control the expression of the countenance. Their actions may be best interpreted, as intimated on page 149, by

comparing them with those produced by the hand-gestures. These, as made with the fist, the finger, and the palm turned away from the gesturer or towards him, all have correspondences in the adjustments of the muscles of the face, and have also corresponding meanings. It is possible, for instance, by a rigid action of the muscles, to make the whole face produce the physical suggestions of a fist (see Fig. 51, page 99). Recalling that the gestures of the mouth are more particularly vital; those of the eye, mental; and those of the nostrils, emotive; there certainly

FIG. 121.—RAGE AND FEAR.
See pages 179, 181, 184, 186, 189.

FIG. 122.—CONTEMPTUOUS RAGE.
See pages 175, 176, 178, 181, 182, 183, 186, 189.

can be no doubt of the physical menace imparted by the firm-set teeth, and the lowering and knit eyebrows. These are sometimes accompanied by an opening mouth (Fig. 121, page 181), and sometimes by rigidly swelling nostrils (Fig. 122, page 181), both serving to give greater breadth of effect. They seem to give this because, while the physical and mental natures are gathering, and, as it were, girding their powers for the conflict, the emotive nature is still wide open to the influences from without, and drawing into the soul every draft of insult like the

breath on which it is freighted, to help fan the flame of indignation.

It is possible, again, to give to the face the more subtly mental effect of a finger gesture. Notice the puckering of the lips, as if pointing to an object, when one is uttering the expression, "whew!" and the vertical wrinkling of the forehead between the eyebrows, together with the contracting of the nose, when thought is concentrated, in order to point, as it were, to some single object of consideration (Figs. 123, page 182; 64, page 117).

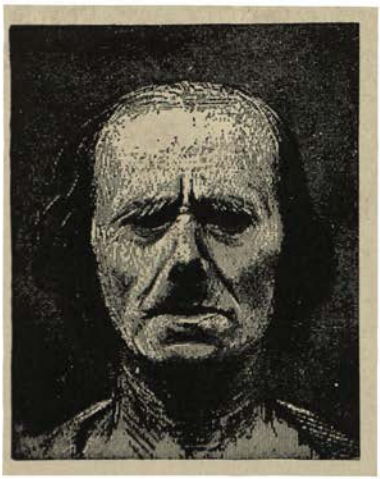


FIG. 123.—REFLECTION.
UPPER PART OF ORBICULARIS PALPEBRARUM MUSCLE.
See pages 182, 184, 185, 186, 188.

Once more, as when using the hands, it is possible, either with or without the aid of the facial movements just mentioned, to produce motive or emotive effects corresponding to those represented by what has been termed the closing gesture, made with the palm turned away from the gesturer, as also by what has been termed the opening gesture, made with the palm not turned thus. There is no doubt, for instance, that the emphatic closing of the mouth, which is the organ of speech representing the most physical or material effects of thought, indicates a closing of the channels of influence (see Figs. 122, page 181, 123, page 182, and 51, page 99). It means that the man does not propose to let his opinions, his motives, or his emotive condition be easily changed by any

consideration presented from without. Nor is it uppermost in his mind to endeavor to change these conditions in others. He is simply emphasizing, in a determined way, his own mood and impressions. When the mouth is not only closed, but drawn down at the sides, then it indicates rejection and displeasure, a more decided closing of the channels of sympathy (Figs. 124, page 183, and 122, page 181). Combined with more contraction of the muscles, it indicates still more displeasure, or discontent, and like the doubling up of the fist, as has been said, a determination to change physical conditions (Fig. 51, page 99). The opening of the mouth, on the contrary, indicates the opening of the channel of influence, and, therefore, that a man is ready both to receive and to impart (see Figs. 125, page 184, to 129, page 186). If the lips expand also at the sides, as in the smile, they indicate an opening of the channels of influence to that which is pleasant and welcome in one's surroundings (Figs. 127, page 185, and 52, page 100). But in the degree in which the sides are drawn together and, as usually in such cases, downward, they indicate that which is conceived to be grave and serious (Fig. 126, page 184), if not scornful (Fig. 124, page 183) and threatening (Fig.

FIG. 124.—CONTEMPT AND DISCONTENT. TRIANGULAR MUSCLE OF THE LIPS.

See pages 121, 183, 185, 188.

51, page 99). When not only the lips, but the whole mouth is slightly open, this indicates great interest either as applied to what is pleasing (Figs. 125, page 184, 127, page 185, and 52, page 100) or alarming (Figs. 126, page 184, 128, page 186, 129, page 186). Notice also the alarm combined with rage in Fig. 121, page 181. Thus the opening mouth seems to indicate that the man is drinking in whatever is seen or heard. When, in addition to this, the lips seem brought forward, as when uttering "whew!"

FIG. 125.—CURIOSITY.

See pages 183. 184, 187.

FIG. 126.—APPREHENSIVE GRIEF.

See pages 173, 183, 184.

which is usually accompanied by that wrinkling of the forehead between the eyebrows noticed in Fig. 123, page 182, thought is pointing, as has just been intimated, to what excites wonder and amazement. Add to this a rigid effect of the muscles, but without that closing of the mouth which indicates a purpose and power to resist the influence from without, and, if the lips be opened mainly at their centres, we have so far as the mouth alone can indicate it, apprehension (Fig. 126, page 184); if they be drawn downward at the sides, we have crying (Fig. 128,

page 186); if accompanied by a contraction of the sides, we have despair or terror (Figs. 113, page 176; 129, page 186; 132, page 188); and if they be opened at both the centres and sides, as if physical will-power in the lips were paralyzed, we have horror or the like (Figs. 133, page 188; 119, page 179).

Turning now to the parts of the face less closely connected with the material manifestations of thought in speech, there can be no doubt that bringing the eyebrows nearer together as in Figs. 123, page 182; 124, page 183; 127, page 185; and 131, page 187, indicates like the finger gesture a concentration of thought upon some particular subject or person. It is equally clear that the lowering of the eyebrows, as in Fig. 123, page 182, and 112, page 176, indicates, like the closing gesture, a closing of the channel of influence. The man does not intend to receive or accept what he hears without serious question; and, possibly, he deliberately intends to reject and oppose it, as in Figs. 51, page 99, and 115, page 177. When the brows are both knit together and lowered, they may, in connection with swelling nostrils and compressed lips, produce, as has been said, the effect of the fist gesture, as in Fig. 51, page 99. The lifting of the eyebrows,

FIG. 127.—LAUGHTER AND GAYETY.
GREAT ZYGOMATIC MUSCLES.
See pages 121, 183, 184, 185, 187.

which has the effect of opening the space about the eyes, always, like the opening gesture, indicates acceptance or communication, sometimes willing, as in the expression of surprise (Fig. 130, page 187); and sometimes unwilling, as in that of sorrowful solicitude (Fig. 131, page 187), where the knit brows accompanying the opening movement show that the matter demands serious concentration of thought. When, in connection with this, the muscles and eyes assume a rigid, staring appearance, as if exerting in vain all effort to shut out the impending trouble, we have the expressions of enforced acceptance, solicitude,

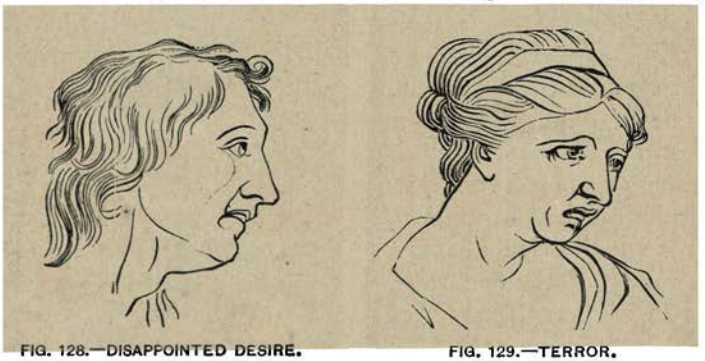


FIG. 128.—DISAPPOINTED DESIRE.
See pages 174, 175, 179, 183, 184.

FIG. 129.—TERROR.
See pages 173, 183, 184, 185, 188.

and hostility combined which in various degrees indicate fright, horror, rage, and fury, as in Figs. 132, page 188; 133, page 188; 121, page 181; and 122, page 181.

The eyes, considered by themselves, also have corresponding effects. Slightly closed, they indicate a critical mood, which is unwilling or, at least, hesitates either to receive or to impart (Figs. 102, page 171; 107, page 174; 123, page 182). Wholly closed, as in contrition and grief, they denote a positive wish to do neither (Fig. 80, page 139;

Fig. 108, page 174). In their normal open condition, with the lids slightly falling and the brows unwrinkled, they indicate an open mind (Fig. 59, page 109). Expanded slightly by wrinkles at the sides and underneath, they indicate a welcome to that which is pleasant in the surroundings (Fig. 127, page 185). Expanded slightly upward, with the lids and brows both lifting, they indicate

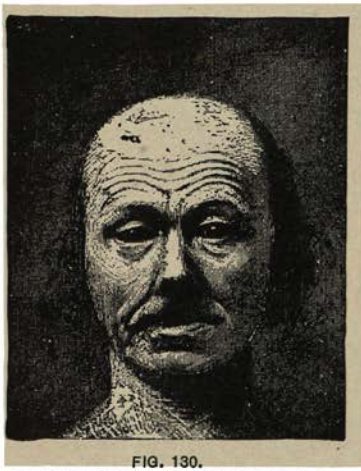


FIG. 130.
ATTENTION AND ASTONISHMENT: CONTRACTION OF FRONTAL MUSCLES.
See pages 186, 187.

FIG. 131.
SORROW: SUPERCILIARY MUSCLE.
See pages 185, 186, 188.

a welcome, either free or enforced, to that which is important, the vertical direction here as elsewhere being the motive or moral one (Figs. 104, page 172; 118, page 178; 125, page 184). When this expansion becomes more marked above the eyebrows, and the muscles causing it become more rigid, expectancy, surprise, amazement begin to be expressed (Fig. 130, page 187). In the last effect

there begins to be much wrinkling of the forehead above the eyes. When, in addition to this, there comes to be a contraction of the forehead, bringing the brows nearer together, the idea of concentrating thought upon the cause of amazement, which is now considered serious, is introduced, and we have fright (Fig. 132, page 188, or horror, Fig. 133, page 188). When there is added to the opening effect the lowering of the brows at the temples, there comes to be a suggestion of solicitude, as already explained (Fig. 131, page 187). When there is an opening,

FIG. 132.—FEAR.
See pages 178, 185, 186, 188.

FIG. 133.—ASTONISHED HORROR.
See pages 185, 186, 188.

a contracting, and a lowering effect, all three together, then there is evidence of fright combined with prolonged solicitude—that is, of terror (Fig. 129, page 186).

The drawing down of the muscles about the nostrils is necessarily connected with the effect which is called the "drawing up" of the nose. Like the finger-gesture, it always points, sometimes merely in an interested way, as in Fig. 123, page 182; but sometimes in a hostile stigmatizing way, as in Fig. 124, page 183. In the latter case it

indicates the emotive phase of rejection, *i. e.*, disdain; and is used with the closing movements of the mouth and eyes, already described, only when disdain is expressed in addition to what they express. The rigidity of the movement puts force into it (Fig. 51, page 99); and the expanding of the nostrils, while it takes from the effect of pointing, increases the effect of largeness and importance (Fig. 122, page 181). The open nostril means an open soul, and if rigidly opened it indicates, as was intimated when speaking of it as used in connection with the firm-set teeth, passion and rage (Fig. 121, page 181).

The reader may now be interested in noticing how these various conclusions have been epitomized into lines representative of the directions assumed by the different features of the face when giving expression to certain typical sentiments. Here are the three principal figures used by the Dutch Humbert de Superville in his well known work on the "Signes Inconditionnels de l'Art."

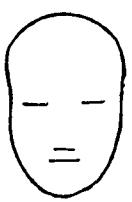


FIG. 134.—CALMNESS.

FIG. 135.—GAYETY.

FIG. 136.—SADNESS.

Three Diagrams of Humbert de Superville.

And on the next page are similar figures, taken from Duval's "Artistic Anatomy."

Any movement, merely playful, that increases the apparent size of any of the features, like the pouting of the

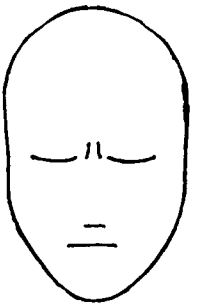


FIG. 137.—REFLECTION.

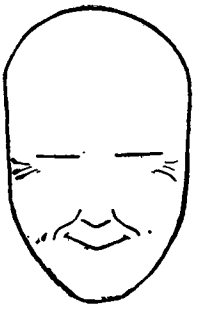


FIG. 138.—LAUGHTER.

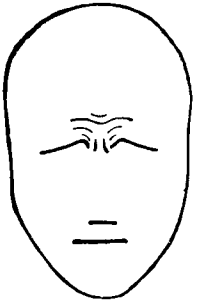


FIG. 139—SORROW.

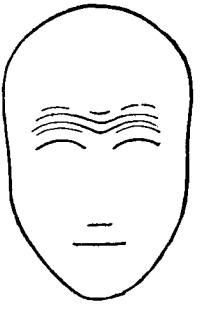


FIG. 140.—ATTENTION AND ASTONISHMENT.

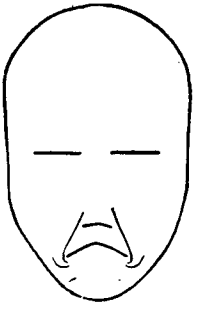


FIG. 141.—DISCONTENT AND CONTEMPT.

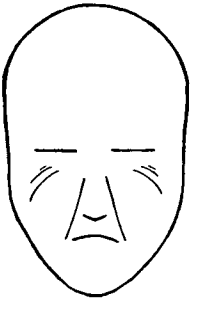


FIG. 142.—GRIEF.

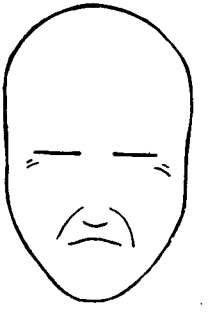


FIG. 143.—GRIEF AND FEAR.

lips, the staring of the eyes, or the swelling of the cheeks or nostrils, merely caricatures the effects, vital, mental, or emotive, that would be produced by these features if really as large as represented. In the countenance, as elsewhere, comic effects are produced, too, by a combination of extravagance and incongruity; the latter, for example, by having one part of the face represent one set of emotions, and another part another set, or by having the whole countenance represent emotions diametrically the opposite of those that the circumstances warrant.

CHAPTER XI.

REPRESENTATION BY MEANS OF COLOR.

Correspondence between the Effects of Tone in Sounds and of Color in Scenes—Mental Effects of Different Degrees of Light—Instinctive, Reflective, and Emotive Effects—Effects of Pitch and Quality in Color, as in Sound, very Closely Allied—Representative Effects of Different Qualities of Tone—Their Correspondences in Colors—Cold Colors and Normal or Pure Tones as Instinctive—Warm Colors and Orotund Tones as Reflective—Varied Colors as Emotive—Confirmation of these Correspondences from Facts of Experience—From the Use of Color in Painting—Especially the Human Countenance—In Sculpture—In Architecture—Representation of Natural Effects of Distance through Cold and Warm Colors in Painting—In Architecture—Correspondence between the Effects of Mixed Tones and Colors—Representative Influence of Black—With Cold Colors—With Warm Colors—Of White with Cold Colors—With Warm Colors—Further Illustrations—Conclusion.

IN certain circumstances, which need not now be explained, color gives to paintings and to both the exteriors and interiors of buildings an effect which, in popular parlance, is termed *tone*. The fact that this term is used at all, indicates how wide is the recognition of at least some correspondence between that to which it applies and an effect produced by the pitch and quality of sounds to which alone it was applied primarily. This recognition, mainly, has suggested the present chapter.

We can best come to understand the significance of elements of expression by considering their significance

in extreme cases. Color is a condition attributable to light. Let us begin by asking what is represented by different degrees of light; and, first, by its absence. Where there is no light, the mind may nevertheless be influenced by sounds; and these, of course, may cause us to imagine sights; but imagined sights are not those that we are now considering. So far as concerns possible scenes, when these are not perceived by us, they cannot, as scenes, exert any influence. Our thoughts are as little aroused to effort by them as are our bodies to activity, when compelled to grope their way in darkness. When there comes to be a little light, however, we can see forms but not colors, or these only as they seem to be very dim and dark. In this condition the mind is not greatly interested in objects nor aroused to thought by them. For now it sees too few of them, and the few that it does see, it sees too indistinctly. But let the light increase, and in the degree in which it does so outlines become more marked and colors more bright; while the mind perceiving a larger number and variety of objects comes to have a larger number and variety of definite thoughts concerning them.

These self-evident facts will enable us to analyze the effects of color in accordance with the principles unfolded on page 19. It will be noticed that, from what has just been said, the deduction is inevitable that the mind's study of objects and understanding of them are necessarily increased with the increase of light. Indeed, it is possible to conceive that this alone might cause all the difference between what might be termed the *instinctive*, because indiscriminative, views of life possessed by an animal and the discriminative or *reflective* results of human intelligence. But far more important, as related

to this subject of color, than are any *instinctive* or *reflective* tendencies represented by these extremes of difference, is the *emotive* tendency represented by the different degrees between these extremes, where both exist in combination. When the light is slight, the thought awakened by objects is not only, as a rule, slight in quantity, but what there is of it is not usually pleasant in quality. The doubtful delineation of the outlines is apt to perplex and annoy the mind, if not, as is sometimes the case, to alarm it by a sense of insecurity. This is to say that the appearances of nature, when, owing to circumstances, they seem robed either in no distinguishable colors or in very dark ones, are not, as a rule, *satisfactory, interesting, cheering,* or *inspiring;* but that sometimes they cause depression and even solicitude. With more light, however, the outlines and colors become more visible, bright and varied, and not only the satisfaction but the excitation derivable from them is increased. These effects continue to be enhanced up to the time, if it ever arrive, when the colors are no longer distinguishable, because the light has become too dazzling. But at this point the disagreeableness of the effect is produced, not because attention is aroused too slightly, but too greatly, as, for instance, by the direct rays of the sun or by a flash of lightning. In all cases, however, even in these latter two, notice the additional excitation to the emotions produced by variety. Sunlight or lightning is never so vivid as when made to contrast sharply with absolute darkness, as in a cave or a cloud. Nor is a bright red or yellow ever so effective as when placed directly against a dull blue-green or indigo. We may say, therefore, that, as a rule, *dark* colors or shades of them which result when the colors, as determined by the spectrum, are dimly

illumined, as also *unvarying* colors, are less exciting to the emotions than are bright and varied ones.

Before illustrating these statements by referring to the actual use of colors in nature and in art, let us look at the general subject from another point of view. A consideration of the amount of light illumining a color cannot well be separated from a consideration of the character and mixture of the light constituting the color. Indeed, as shown in Chapters XII. to XV. of the essay on "Rhythm and Harmony in Poetry and Music," the same statement might be made with reference to the consideration of pitch and of quality in sound to which these two effects in sight are analogous. Just as the quality of sound is determined by the pitch of the different partial tones of which a note is compounded, so the quality of a color is determined by the hues which result from the different partial effects of light of which the rays producing it are compounded. For instance, when, in a screen shutting out the light from a darkened room, we make a narrow slit, and through this allow the light to enter, and receiving this light on a prism separate one ray of the light into various partial rays of the same, all the colors of the spectrum will appear on a white wall opposite the window. But the red color will appear nearest the place on which the white light would have fallen, had we used no prism, and, farther and farther from this place, will appear respectively, in this order, orange, yellow, green, blue, and purple. For this reason, the first three of these colors are supposed to be most nearly allied to light as well as, according to some, to the fire and heat which we naturally associate with the sources of light. Red, orange, and yellow, and their allied colors, are therefore termed bright or warm ; and green, blue, and purple, dark or cold.

The very fact of the use of these terms shows the close connection between the influence of light and darkness upon the amount of color, as indicated on page 194, and its influence upon the kind of color; and why, therefore, it is better, as has been suggested, to consider the two together.

As preparatory to doing this intelligently, let us observe a few more analogies between the effects of quality in tone and in color. Quality in tone, as stated in Chapter XI. of "Poetry as a Representative Art," as also in Chapter VI. of "Music as a Representative Art," is particularly expressive of the feelings. Of the different kinds of quality that known as the pure or normal—the tone of ordinary utterance—is best represented by the short vowels in poetry, and by the flute in music. The orotund tone—that of agreeably exhilarated utterance—is best represented by the long vowels and tonic consonants in poetry and by the horns in music. The aspirate tone or whisper, indicative of secrecy either of sympathy or alarm,—a tone used generally in connection with other tones to augment the feeling expressed in them—is best represented by the aspirate consonants in poetry and by the violins in music. The hollow pectoral tone indicating horror is best represented by the round vowels together with strongly aspirated or atonic consonants in poetry, and by the larger and lower wind instruments in music; and the guttural tone indicating hostility is best represented by the consonants approaching the g-sounds in poetry and by the sharper metallic sounds in connection with the cymbals and drums in music. The normal and orotund tones are musical and pure; the aspirate, in itself considered, is mainly an absence of tone; and the pectoral and guttural are unmusical and impure in the sense of being mixed. They are always very largely mixed, too, with the aspirate. For further

description of these tones see "The Orator's Manual," pp. 94–105.

The significance represented by these tones, as used in elocution, is indisputable. Reference is made to them here for the purpose not merely of showing the unity of method in different parts of this system, but also for the purpose of accomplishing that for which this unity of method is intended to be serviceable. In this place, it will serve to aid us in determining the significance of pure and of mixed colors. The correspondence seems exact between the influence of normal tone and of the cold colors; the influence of the orotund tone and of the warm colors; the influence of the pleasurable aspirate and of white; and the influence of the solicitous aspirate and of black. The correspondence is less exact, but still sufficiently so for our purpose, between the pectoral tone and the cold colors used in combination with black, and between the guttural tone and the warm colors used in combination with black.

We will take up, first, the distinction between the pure tone, *i. e.*, between the distinctively pure or normal tone, and the orotund. In elocution, the former is not necessarily a cultivated tone, but the latter, the orotund, is. The former therefore suggests the natural, and the latter the artistic. Is not the same true with reference to the classes of color to which these have been said to correspond? Just as the normal or pure tone is that of ordinary natural intercourse, are not the cold colors, the greens, blues and purples, those of ordinary natural life? Is it not true that for nine-tenths of all the time, nine-tenths of all the surfaces of the globe,—*i. e.*, the lakes, skies, hills, forests, fields, rocks, distant and near,—are robed in these colors? The warmer colors, the reds, oranges, and

yellows, appear occasionally in nature in the sunset sky, the autumn foliage, the hues of flowers, the plumage of birds, and the coating of animals; but it is remarkable how seldom they appear at all, how little surface, comparatively, they cover when they do appear, how infrequently they appear in their full intensity, and how, universally, when they do appear in this, they are considered exceptional and worthy of remark. They certainly are not nature's normal colors. Man cannot dye anything bluer or greener than he can often see in the sea and sky and forest; but nowhere in the world can he raise a red or orange flag that will not instantly be recognized as something different from anything in nature, and, therefore, as something that is signalling the presence of man. Hence the use of these colors, especially of red, by surveying parties, and on railways, piers, and battle-fields. Such colors are the ones that are most suggestive of human interference. As used in art, therefore, they are the colors representing the condition upon which the thought of the artist has had the greatest influence, or, according to the phraseology that we have been using, the colors which most naturally give expression to the mental or reflective tendencies. The colors at the other end of the spectrum, the greens, blues, purples, being less suggestive that the elements of form have been changed from the state in which they are found in nature, are, of course, the ones that most naturally give expression to the physical or instinctive tendencies.

With these facts, however, we need also to bear in mind that which is a logical inference from what was said on page 194, namely, that all very low and uniform shades even if of yellows, oranges, and reds,—have a quieting effect, and all very high and—because contrasts emphasize

one another, and most contrasts of cold colors are warm[1]—all contrasting tints, even if of purples, blues, and greens, have an exciting effect. To compare these conditions again with those of pitch in elocution and music, this, if low and monotonous, indicates what is *serious*, *grave*, *dignified*, and *self-controlled*, and, if high and varied, the opposite. Does it require an argument to show how perfectly these analogies are carried out as applied to colors? Do we not all recognize the more exciting and exhilarating effects of these when full of brightness and contrast? Who has not noticed the difference in influence between a lawn and a flower-bed? or between a room decorated with evergreens and the same decorated with chrysanthemums? or between a uniformly clouded gray sky, and a sky lighted up with the diversified glories of the sunset? or between the dulness and monotony of a business street when the shop-entrances are hung with dingy clothing for sale, or the sidewalks filled with people in dark business suits, and the same streets when hung with bright and varied flags on a gala day, or crowded with throngs decked out in the gay and checkered trappings of a carnival or holiday parade? Of course, uniformity of color, like uniformity of outlines—as in parallelism—produces a certain seriousness and dignity of effect; and any procession, the members of which are dressed alike and march alike, will produce something of this irrespective of the quality of the coloring. But there is a vast difference between the degree of seriousness and dignity in the effect of a procession of priests and nuns robed in black or gray in a funeral or at church, and in that of militia uniformed in bright colors on a holiday or in a theatre. Seeing the funeral, it is impossible to conceive that any child, or a crowd of any

[1] Green-yellow of purple, red-orange of blue, and purple-red of green.

kind, should require explanations, aside from those suggested by color alone, to keep them from growing wild with enthusiasm or being excited to cheers. In the theatre, this would be their most natural mode of expression. Notice, too, how much more the children's eyes dilate to welcome the regiment of soldiers clad in red and yellow, than the one arrayed in blue or gray. The latter colors may be the best for the ordinary manœuvres of the battle-field, more easily hidden by the smoke, more deceptive in a question of distance. But in a charge, even upon an experienced veteran, the regiment clad in flaming red will be far more difficult to withstand. There is philosophy as well as fancy, therefore, that underlies the use of this in the costumes of the British regulars and of the French zouaves. Nothing having to do with color can compare with it in effect. These facts have been explained according to the principle of association. It is said that red is the color of blood and fire, and suggests them. But does it suggest them to the bull and other animals whom it excites to fury? In these cases does it not act physically? Physicists agree that there is no color that agitates the optic nerve so violently. There seem to be, therefore, just as in the case of outlines, principles both of association and of nature which cause certain kinds of colors and, to a less degree, all colors, when at their brightest, to be representative of emotive excitation, and certain other kinds of colors, and, to a less degree, all colors in their lower tones, to be representative of the opposite.

All the great facts of nature are felt long before they are formulated. When the man born blind expressed his conception of the color red by saying that it was like the sound of a trumpet, he uttered not a poetic but a literal

truth. Just as red is the color that is farthest removed from the ordinary colors of nature, the blast of the trumpet is the sound that is farthest removed from the ordinary sounds of nature. All pastoral symphonies abound in passages executed by the flutes and clarionets, and the violins and other stringed instruments. With the music produced by these, it seems natural to associate the sounds produced by the rustling and whistling of the wind, the rushing and dashing of the waters, and the occasional piping of a bird and the lowing of an animal. The drum and cymbal, too, may remind one of the exceptional thunder of the storm, or the roll of the earthquake. But when the flutes and stringed instruments give way to the trumpet and allied instruments, then we feel that man is asserting his influence in the scene, and we listen, almost instinctively, for the sound of his tramping feet. It is only man that marches. It is only man that wages war, and it is only in martial music and in the expression of the passion of conflict and the pride of triumph that the blasts of the trumpet, announcing, as they do, more distinctively than do any other musical sounds, the power and presence of the human being, realize to the full their representative mission. No wonder that even a blind man, at the end of the play, just as the curtain drops on the victorious conquerors, should be able to imagine how there should be an æsthetic connection between the brilliant climax that is heard and the brilliant colors in the costumes and flags which are described to him as surrounding the conquerors, and waving above them.

The same principles must apply, of course, to the significance of color as used in painting and architecture. In the ordinary portraits of great men, in such paintings as Raphael's "School of Athens," Fig. 156, page 249, in which

we find grouped together the celebrated characters of many periods, or in a representation of solemnities like that in Jules Breton's "First Communion," the seriousness and dignity of the subjects are such that we do not feel the need in the pigments of much brightness or contrast. But whenever anything is intended primarily to produce a powerful impression, it is best portrayed in this way. Hence one reason why Rubens with his high and varied coloring is so transcendently great in such representations of profound excitement as in the "Lion Hunt" or in "The Crucifixion" which is in the gallery at Antwerp, or in the "Descent from the Cross," Fig. 163, page 277, and is so transcendently gross in subjects of a lighter character, as in many of those in the Old Pinakothek at Munich.

But there is also another reason for this fact, and in connection with it, there is another confirmation of the general truth of the statements just made. It may be recognized by noticing the effects produced by colors upon pictures of the human countenance. So far as this latter is more than a mass of lifeless flesh, so far as it is something fitted to be transfused and transfigured by the seriousness of intelligence and the dignity of spirituality, is there any doubt that it should be represented in colors neither very brilliant nor greatly varied? May there not be a sense in which it is a literal fact that the blue veins of the aristocrat are far more suggestive of sentiment and soul behind them, not only than the bloated flush of the inebriate, but even than the ruddy hues of the peasant? Compare even the "Beggar Boys" of Murillo, or his ordinary women, with the flaming flesh blistering on the limbs of Rubens' denuded females. Not alone the angular curves that often form the outlines of these latter,

but the coloring, too, causes all the difference in delicacy, refinement, and tenderness of sentiment between them and the former, that we should naturally expect to find between a friar's madonna and a farmer's mistress.

So, too, in sculpture. Is it not universally recognized that statues of dark gray, blue, or black marble, granite, or bronze, as in the case of some of the Egyptian remains, (Fig. 147, page 221,) while fitted for subjects presented in proportions sufficiently large to secure great seriousness and dignity of effect, are less appropriate than statues of white marble for subjects of the same general character when presented in the proportions of life? And is it not equally true that subjects of a lighter character and smaller size are far more appropriately represented in the warmer colored bronzes?

In architecture, outline has usually more to do with effects than has color. Yet here, too, few fail to recognize the influence of the latter. Who can be insensible to the congruity between the seriousness, gravity, and dignity of effect produced by dark shades of gray or even by white, as they loom before us in the outlines of the cathedral, as in Figs. 144, page 205, and 3, page 24, or of the large public edifice, as in Fig. 203, page 365, or in the capitol at Washington? But who finds it agreeable to have the same conceptions associated with buildings designed for domestic purposes? Observe how cold, as we very appropriately say, and therefore how devoid of that which is homelike and inviting, is the impression produced by the blue-gray or white of a mansion, like the one occupied by the Manhattan Club of New York, as contrasted with the appearance of a house constructed of material in which there is a more liberal admixture of the warm hues, as in stone or brick of a yellow, orange, red, or brown tint. This

is true as applied even to very dark brown. Compare with the mansion just mentioned the twin houses of the Vanderbilts, on the same avenue. And what of the warm colors when used with contrasts? Is there any one who is not conscious of the joyous, gay, and exhilarating suggestions imparted by the bright and varied tints that invite one to the pavilion of the park or the veranda of the seaside cottage? The same principle, of course, is exemplified in interiors. Cold colors on the walls, an exclusive use of blue, or green, or even of white will always affect the sensitive like the clouds of a lowery day, while the warmer colors, used either wholly or in part, will correspondingly enliven them. No one can deny the impressiveness of the gray of the stone arches that bend over the "dim religious light" of the church. But even the effect of this needs to be counteracted by warm colors in the chancel; and it would be wholly out of place in a theatre. The difference between the interior of the Cathedral of New York and of the Metropolitan Opera House, though largely one of form, is still more largely one of color. Some years ago the directors of the Academy of Music in Philadelphia had the building refitted. The walls were covered with paper in which blue predominated. The effect was manifestly so disastrous to the complexion of the audience and the cheerfulness of their spirits, that, during the twenty-four hours subsequent to the first night of its reopening, the entire room was papered again, this time more appropriately. Fortunately, all are not sensitive to color, and few of those who are, are able to assign the right reason to the causes of their sensations. All the same, it behooves those who know that certain persons with certain temperaments are thus affected, to avoid, for their sakes, any violations of those conditions which, as a rule, conduce to cheerfulness and comfort.

205

FIG. 144.—WELLS CATHEDRAL, ENGLAND.

See pages 203, 380, 405.

There is another effect of these cold, as contrasted with warm colors, which, perhaps, should be mentioned here, though, for another reason, it belongs to the subject to be treated in Chapter XVI. Owing to the degree of light that is necessary for the production of the warmer colors, it is only when objects are near at hand and therefore are in very strong light that we perceive these colors at all. At a distance, as exemplified in the blue of mountain ranges, everything is robed in the cold colors. For this reason, it is held that, in painting, the warm colors, with their compounds and admixtures, have the effect of causing objects to seem to be at the front of a picture, and the cold colors of making them seem to be at the rear. We know that in linear perspective the farther off objects are the smaller they appear. In aërial perspective, the farther off they are the more dim, or blue, or purple, or gray they appear (see Fig. 168, page 297). A careful regard of this rule may sometimes enable the painter not only of landscapes but also of figures to produce very striking effects. An illustration of this has been noticed in "The Scourging of Christ" by Titian, the greatest of the older colorists, in which a figure necessarily placed in front of our Lord, is painted with gray armor in order not to distract attention from the Christ himself, who, though in the rear of this, is thrust into prominence by the red coloring of his robe. A similar effect, in fact, is a result wherever this color is introduced.

As applied to architecture, it is evident that, aside from the effects of form, which in certain cases may entirely counterbalance those of color, the colder the color, the more massive, as a rule, will appear not only the building itself but also the grounds about it; the effect of the cold color being to make the house and its parts seem at a

greater distance from the observer, and, therefore, greater in size than it would be at the supposed distance. Hence, another reason for using cold colors in grand buildings. The same principle applies to the painting and the papering of an interior. The warm colors cause an apartment to seem smaller and more cozy, and the cold colors exactly the opposite. The latter on the walls, therefore, not only for the reason suggested on page 204, but because of these uncozy effects, are objectionable. But for ceilings, especially of public halls and churches, blue at least is rightly popular. Thus used it suggests largeness and elevation, as in the sky which it seems to resemble; and it also furnishes, as a rule, an agreeable contrast to the warmer colors appropriate for the walls and floors.

Now let us consider the mixed as distinguished from the pure colors. Going back, for a moment, to mixed tones, the first of them that was mentioned was the aspirate. This, as was said, is a whisper, and its characteristic is an absence of any tone whatever. Of course, that which, in the realm of color, corresponds to an absence of tone must be, according to its degree of intensity, black or white, or else some gray quality formed by mixing the two. The whisper, in its forcible form, the analogue of which, in the realm of sight, would be black, indicates apprehension, as in fright; and in its weaker form, the analogue of which, in the realm of sight, would be white, indicates interest, as in the secrecy of a love-scene. In both forms the whisper adds feeling to the tone, which, as a rule, is usually uttered, if not simultaneously with it, at least before or after it. This tone, of course, considered irrespective of the whisper that is joined with it, must resemble either the normal or the orotund. If it resemble the normal, the forcible whisper causes it to have that pas-

sive effect of apprehension characterizing the expressions of *awe* and *horror* represented in the mixed quality which is termed pectoral. If the tone resemble the orotund, the forcible whisper causes it to have that active effect of apprehension characterizing the expression of *hostility* represented in the mixed quality which is termed gutteral.

In the realm of sight, nothing could be perceived if everything were absolutely black. Black, therefore, as well as white, must always be blended with other shades. When blended thus, the effect of being side by side is much the same as of actual mixture. At a slight distance, we cannot tell whether the appearance is owing to the latter or merely to the fact that two shades happen to be near together. Now bearing this in mind we may say that the effect of black, when blended with the cold colors, corresponds to that of pectoral quality, and, when blended with the warm colors, corresponds to that of guttural quality.

Notice, first, the combinations of black with the cold colors. In such cases the black, of course, must be very prominent, and, merely to render the objects depicted clearly perceptible, it must be offset in some places by cold colors of comparatively light tints. But where light tints are blended with absolute black, there must be some violent contrasts. Violent contrasts of themselves, as shown on page 194, represent excitation. Excitation, however, in connection with blackness,—to go back to what was said, on page 193, of the effects of light from which we have developed those of pigments—is excitation in connection with more or less indistinctness causing perplexity and involving apprehension. At the same time, as this apprehensive excitation is connected with

the cold colors, it is passive, or, as one might say, chilling and benumbing, rather than active, or, as one might say, heating and inflaming. For this reason its effects seem appropriately compared to those of *awe* and *horror* represented by the pectoral quality. Of course, color alone, without other means of expression, can only approximate a representation of these feelings; but, given the outlines, and what hues, mixed with those of the countenance, can make it so ghastly as dark blue and green; or can make the clouds of heaven so unheavenly as very dark blue; or the sod of the earth so unearthly as dark blue-green; or anything so deathlike and appalling as these colors used with excessive contrasts of light and shade? Is it any wonder that it is with these combinations that Gustave Doré produces most of the harrowing effects in his series of pictures illustrating Dante's "Inferno"?

Now let us add black to yellow, orange, or red, either mixing the two or placing them side by side, and notice the effect. As said before, the very dark shades cannot, in painting, be used exclusively. If they be, the outlines cannot be made clearly perceptible. But to use black in connection with the lighter tints, introduces that variety which, as said on page 194, always increases the excitation of the effect. Warmth, in connection with black, or, as explained in the last paragraph, with apprehensive excitation,—emotive heat causing active resistance to that which is dreaded,—does not this describe, as nearly as anything can, a condition attendant upon *hostility* such as is represented to the ear by the guttural tone. In the case of the warm colors, too, still more than in that of the cold, nature seems to have enforced the meanings of the combinations so that we shall not mistake them. Yellow and black, orange and black, red and black, or,

in place of black, very dark gray, green, blue, or purple, which are allied to black,—is there a particularly venemous insect or beast, or appearance of any kind, from a bee, or snake, or tiger, to the fire and smoke of a conflagration, or the lightning and cloud of a storm, in which we do not detect some presence of these combinations? No wonder, then, that so often in former times, at least, soldiers wore them on their breasts when girded for the contests of the battle-field!

The whisper, in its weaker form, was said to represent not apprehension, but a more or less agreeable degree of interest. Of course, the weaker form of a negation of color, at its extreme, must be represented by white. As applied to tones, there is no separate term of designation for this whisper when added to normal or orotund quality. Elocutionists merely speak of an aspirated normal or orotund, saying that, when aspirated, feeling is added to the effect of each. Let us recall now combinations of white with blue, green, or purple. Is there any difficulty in recognizing how closely the result corresponds to that which is produced by an aspirated normal tone? We have all seen such combinations in summer costumes, as well as in tents and awnings over windows or verandas. In such cases, is there not a more exhilarating effect produced by them than could be produced by white alone? or by one of these colors alone? Yet, at the same time, is not the effect far cooler, and, in this sense, less exhilarating, than is produced by combinations of white with red, orange, or yellow?

In these latter we have, as has been said, that which corresponds to the effect of the aspirated orotund,—the tone used in earnest advocacy or description of something which is felt to be in itself of profound interest.

Think of the combinations of white with these warmer colors. Could any language better than that just used designate their peculiar influence? What than they are more exhilarating or entrancing in the decorations of interiors, or in banners and pageants?

Even were it possible, which it is not, to illustrate fully in book-form these various effects of color, there would be no great necessity for doing so. By following up the suggestions that have been made, those interested in the subject will have no difficulty in applying the principles unfolded, sufficiently, at least, to become convinced of their essential accuracy. Nor is it necessary in this place to carry the discussion further, and try to distinguish between the representative possibilities of each of the cold colors—green, blue, and purple, or of the warm colors—red, orange, and yellow. Viewed in their relations to mental effects, the differences between the colors of each group, as between the shades of each color, are mainly of degree, not of kind, and depend largely upon the natural color of the objects represented or by which these are surrounded. In a general way, one might say that a dark purple-like blue would have the coldest effect, and a bright orange-like red the warmest. But, as applied to the human countenance, certain shades of green might seem the most ghastly, and, as applied to clouds, certain shades of purple. The only unvarying fact is that indicated by the general division into cold and warm colors. Accordingly attention has been directed here to this, and to this alone.

With the representative possibilities of color, our examination of the various elements of visible expression, as considered separately, has been carried as far as is necessary for the purposes of the present volume. The

suggestions of the subject, however, are almost as infinite as nature itself, and are, by no means, limited to such as are derived from the use of forms in the higher arts. This fact has been brought forcibly to the mind of the author since preparing the present treatise by a large illustrated pamphlet, entitled "Principles and Methods in Art Education," containing an abstract of lectures delivered by Principal John Ward Stimson, of the New York Institute for Artist-Artisans. With a remarkable combination of analytic ability and artistic knowledge, the lecturer has endeavored to connect every possible form of line, though used merely in decorative art, with an expression of a mental conception. Whatever may be thought of some of the non-essential details of his presentation, which are elaborated with a marvellous amount of particularity and variety, there can be no question of the very great service which he has rendered to both the philosophy and practice of æsthetics. By applying, too, as he does, an absolutely correct conception of the connection between beauty and significance, where the presence of the latter is the most difficult to detect, *i. e.*, among the elements of mere conventional shapes, he has very greatly strengthened an argument for the same conception when applied to the representations of man and of nature in figures and landscapes in which the necessity of significance is far more generally conceded.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

CHAPTER XII.

THE DEVELOPMENT OF REPRESENTATION IN PAINTING AND SCULPTURE.

Connection between what is to Follow and what has Preceded—How Poetry and Music are Developed from Language and Intonation—Analogous Methods as Exemplified in Painting, Sculpture, and Architecture—Prehistoric Pictorial Art — Representing External Appearances not only, but Mind—Earliest Art of a Historic Period—Picture Writing—Hieroglyphic Writing—Description of—Art as Distinguished from Writing in Egypt—In Greece—Early Representation of Ideas and Later of Natural Appearances only—Symbolism of Early Christian Art and Naturalism of Later Art—Ideas and Nature as Represented at the Renaissance and at Present—Possibility of Two Opposing Tendencies —Justification for each of them—Yet need not Exclude each other—So far as Exclusive each is Detrimental—Practical Application of these Facts to Present Conditions—The Yellow Book—American Illustrated Magazines—Importance of the Subject.

IN accordance with the plan indicated on page 14, we have now studied in detail each of the factors of appearance of which the forms of painting, sculpture, and architecture are composed, and tried to ascertain the phase of mental and natural phenomena which it can be said to represent. Of course, it follows that if these factors, separately considered, are representative, they must be the same when combined with others in a completed art-form. In the remainder of this volume we have to observe in what regards this is true, looking at the subject, first, as applied to painting and sculpture, and, after that, as applied to architecture.

In the volume of this series entitled "Poetry as a Representative Art," it was shown that the art of poetry begins when a man takes the instinctive or imitative utterances which he finds already developed, according to the methods of nature, into the forms of words and phrases, and develops further, according to the methods of art, the elements of which their forms are constructed. As a result, the thought and emotion which these elements naturally represent by way of association or of comparison, continue to be represented in the art-products developed from them, but in a far more elaborate and æsthetically effective way. So, too, it was shown in the essay entitled "Music as a Representative Art," printed in the same volume as "Rhythm and Harmony in Poetry and Music," that the art of music begins when a man takes, as a *motive*, a series of sounds already developed according to the methods of nature into forms of utterance coming from birds, beasts, or human lips, whether in speech or in a previously existing melody, and develops further, according to the methods of art, the elements of which these forms are constructed. As a result, the phases of thought or emotion represented in the orignal utterances by way of association or of comparison, continue to be represented in the art-products developed from them, but in a far more elaborate and æsthetically effective way.

Precisely similar are the conditions underlying results in the arts of sight. These, too, are more elaborate and æsthetically effective developments of methods natural to men when expressing their internal thoughts and emotions through using, as they must always do, the external appearances surrounding them. Of the developments themselves there are two different phases—one appearing

in painting and sculpture, and the other in architecture. The differences between these phases and the reasons for them, are explained on pages 28 to 32 and need not be repeated here. The first phase, common to painting and sculpture, represents, as indicated on page 30 of this volume, and more fully elaborated in Chapter XIX. of "Art in Theory," a condition of consciousness, immediately and constantly under the influence of external appearances; and for this reason a condition manifesting itself through more or less direct imitation of these. In this respect these arts are correlated to poetry. Indeed, in the sphere of sight they are scarcely more imitative, though this fact

FIG. 145.—FIGURE CARVED IN THE STONE AGE.
See page 216.

is sometimes overlooked, than this latter art is in that of sound. A figure of a man untrue to the conditions of nature would be no more out of place in painting or sculpture than the words of a man untrue to the same would be in poetry.

What has been said thus far in this chapter would seem to make it desirable to show here, could it be done, that we owe both painting and sculpture, primarily, to the efforts of men to represent in a distinct way their own thought or emotion as well as the appearances surrounding them. But it must be confessed that, upon first examination, such does not seem to be the case. Gabriel and Adrien De Mortillet, as illustrated in Plate XXVII. of

their elaborate work, the "Musée Prehistorique," have shown that, back in the prehistoric time of the Madeleine period of the early stone age, men had begun to carve on bone images of the mammoth, cave-bear, reindeer, ibex, saiga, fish, horse, and human being (see Fig. 145, page 215). Such carvings are the earliest remains of art of which we know; and, although some of them in a few museums show an animal and a human being brought together in a way suggesting a desire to represent ideas through indicating a connection between the two, the writer, for one, has seen no specimen rendering it certain that this was done for any other reason than because the material on which to carve was limited in size.

We must draw the inference, therefore, that, in very early ages, a desire to imitate the sights of nature for their own sakes irrespective of definite ideas to be represented through the use of them, must have existed. But although drawing this inference, notice, further, that any desire to imitate sights must have come later than one prompting men to imitate sounds; and this for the same general reason that children of our own day learn to talk before they learn to use a pencil and draw. We may be sure that, at the time when these figures were produced, the primitive man was in the habit of communicating ideas through vocal utterances, or primitive words. If so, he had definite ideas, and he had them, too, with reference to the visible form which he copied; and it is inconceivable that he should have copied this for any other reason than to represent these ideas, though not, necessarily, to communicate them. Notice the difference between these two aims as explained in Chapter V. of "Art in Theory." Or look at the subject in another light. The fact that these figures were copied at all, furnishes

the best possible proof that their producers were men and not apes, because animals never copy in this way. In other words, regarding forms as merely results of imitation, we have to acknowledge that painting and sculpture are results of effects produced by external appearances upon a mind; and, as any effect upon a mind has to do with ideas, there is a sense in which a representation of ideas is involved in any attempt at such imitation as we find in these specimens. See "Art in Theory," Chapter VI., entitled "Representation of Natural Appearances as Involving that of the Mind."

Moreover, besides this, although the evidences of attempts to connect together different figures or certain parts of the same figure so as to direct attention, in a definitely picturesque way, to the conceptions intended to be indicated, are not clearly discoverable in prehistoric periods, they are discoverable very early in historic ones. The practical uses made of pictures in the illustrated publications of our own day except, perhaps, as applied to caricature, are by no means modern. Immediately after the times in which national records were kept by means of knots made in cords of the same or of different colors, as was the case with the Peruvians and some of the tribes of Asia and Africa, rude figures began to be scratched, or stained, or carved, according to requirements of the material, either on green leaves, whence our word *leaf* as applied to the page of a book; or on bark, often of the beech, whence our word *book*; or on wood, often of the papyrus, a reed growing in the marshes of the Nile, whence our word *paper*; or on stone or metal,—all of which figures in their forms were what is termed ideographic, because representing ideas through a graphic or pictorial method.

"A piece of cotton cloth is before us," says Collier in his "History of English Literature," "brilliant with crimson and yellow and pale blue, and oblong like a modern page. It is a picture-writing of old Mexico, relating the reign and conquests of King Acamapich. Down the left border runs a broad strip of blue divided into thirteen parts by lines resembling the rounds of a ladder. This represents a reign of thirteen years. In each compartment a symbol expresses the story of the year. A flower denoting calamity is found in two of them. But the chief story is told by the colored forms of the centre, where we have the sovereign painted twice, as a stern-looking head, capped with a serpent-crest, with a dwarfish, white-robed body, and, separate from the shoulder, a hand grasping a couple of arrows. Before this grim warrior, at the top of the scroll, lie a shield and a bundle of spears. Face and feet are painted a dull yellow. Before his second effigy we have four smaller heads, with closed eyes and an ominous, bloody mark upon lip and chin, denoting the capture and beheading of four hostile chiefs. The four sacked and plundered cities are depicted by roofs falling from ruined walls; and beside each stands a symbol representing some botanical or geographical feature by which its site is characterized. Pictures of different species of trees distinguish two of the cities; the third stands evidently by a lake, for a pan of water is drawn close to it, united by a line to mark close connection."

The connecting link between this form of representing ideas and phonetic writing, whether verbal like the Chinese, syllabic like some of central Asia, or alphabetic like our own, is found in hieroglyphics. These were used in Egypt, and innumerable specimens of them are

still visible on the existing obelisks and tombs of that country. Notice the characters composing the inscriptions in Fig. 146, page 219. In these characters the forms of natural appearances abound; and yet some strictly conventional meaning seems to be assigned to each of them. They express abstractions and qualities. To quote again from the work just mentioned: "In the hieroglyphic writing of the Egyptians the queen bee represents loyalty;

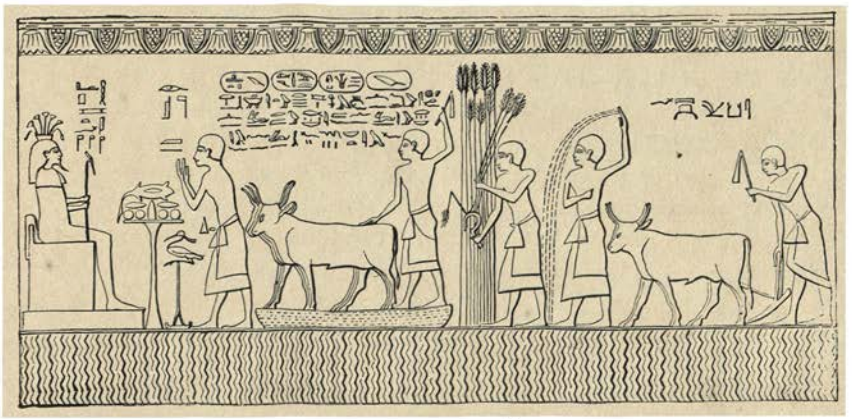


FIG. 146.—EGYPTIAN PICTURE FROM THE "BOOK OF THE DEAD."
See pages 219, 221, 222.

the bull, strength; an ostrich feather, from the evenness of its filaments, truth or justice. The figures are often, especially in later writings, reduced to their principal parts, or even to lines, the latter being the first step toward the formation of an alphabet. For instance, a combat is represented by two arms, one bearing a shield, the other a pike; Upper and Lower Egypt are denoted by single stems topped with a blossom or a plume, repre-

senting respectively the lotus and the papyrus. The coloring of the hieroglyphics is not in imitation of nature, as is the case with the earlier picture-writing, but follows a conventional system seldom departed from. The upper part of a canopy in blue stood for the heavens, a thick waving line of the same or a greenish hue represented the sea. The sun is red with a yellow rim. Man's flesh is red; woman's yellow; . . . wooden instruments are pale orange or buff; bronze utensils green. The effect of a hieroglyphic writing, as it strikes the eye, is very brilliant, red, yellow, and blue being the prevailing hues."

This hieroglyphic writing of Egypt assumed two forms: It was painted on papyrus and also both painted and engraved on stone. "The wall," says Owen Jones in his "Handbook to the Egyptian Court of the (London) Crystal Palace," "was first chiselled as smooth as possible. . . . Lines were then ruled perpendicularly and horizontally with red color, forming squares all over the wall corresponding with the proportions of the figures to be drawn upon it. The subjects of the paintings and of the hieroglyphics were then drawn on the wall with a red line, most probably by the priest or chief scribe or by some inferior artist, from a document divided into similar squares. Then came the chief artist who went over every figure and hieroglyphic with a black line and a firm and steady hand, giving expression to every curve, deviating here and confirming there the former red line. The line thus traced was then followed by the sculptor. In this stage there are instances of a head or a foot having been completely sculptured, while the rest of the figure remains in outline. The next process was to paint the figure in the prescribed colors; and in some cases the painted line deviates from the sculptured line, showing that the

painter was the more important workman, and that even in this process no possible improvement was omitted. There are other instances where a considerable deviation from the position of a leg or arm has been made. After the sculpture was finished and painted, the part was recarved and the defective portion filled in with plaster, which, having since fallen off, furnishes us with this curious evidence of their practice."

FIG. 147.—ANCIENT EGYPTIAN HEAD: BRITISH MUSEUM.

See pages 203, 222.

It must not be supposed, however, that, even in Egypt, hieroglyphic writing and art—the one intended to communicate directly and the other to represent indirectly—were not clearly separated. In Fig. 146, page 219, the distinction between the two is almost as apparent as in modern times. At a very early period in Egyptian history, too, we find

statues of great excellence, in the production of which artists were evidently actuated by a desire to represent nature rather than thought. The face in Fig. 147, page 221, according to the dynasties inscribed upon it, dates back to between 1600 and 1400 B.C. Doing so, it antedates by fully three hundred years the conventional representation in Fig. 5, page 27, for the Piankhi there depicted did not live till toward the end of the twenty-second dynasty, somewhere between 1100 and 975 B.C. Moreover, the "Book of the Dead," from which Fig. 146, page 219, is taken, is said to have been begun to be written about 700 B.C., though, as the book had existed in traditional form for centuries, the date of the origin of this illustration is uncertain. Both these latter figures, however, show how completely the desire to represent nature, as indicated in Fig. 147, page 221, became, after a time, subordinated to that of representing ideas. Indeed, in view of the fact that so many of these pictures were symbolical of religious conceptions, some have supposed that the priests must have begun to impose rules regulating the appearances of the figures used. This extreme of conventionalism, however, after a time produced its natural result, and drove art to the opposite extreme. In Greece, as in every country using alphabetic characters, it was always recognized that writing was one thing and art another; and that, while the first might accomplish its highest purpose without an accurate representation of external forms, the second could not. But even in the earliest Greek art, the desire to symbolize ideas as well as to copy nature was still prominent. There is little essential difference in method, for instance, between Fig. 5, page 27, illustrating an Egyptian design, and Fig. 6, page 27, illustrating an early Greek design, dating to between

558 and 700 B.C. Through all the periods of Greek art, too, there was more or less of the same style of treatment. Those whose attention has never been directed to the fact will be surprised to notice the vast preponderance of groups, as contrasted with single figures, in the works of Phidias (490 to 430 B.C.), who represents the best period of Greek art, as, *e. g.*, in the pediment and frieze of the Parthenon, a part of the latter of which may be seen in Fig. 148, page 223. Notice also the Laocoön, Fig. 21, page 49, which was produced probably two hundred years later by the artists of the Rhodian school. Nor, except in comparatively late periods, did the Greeks produce

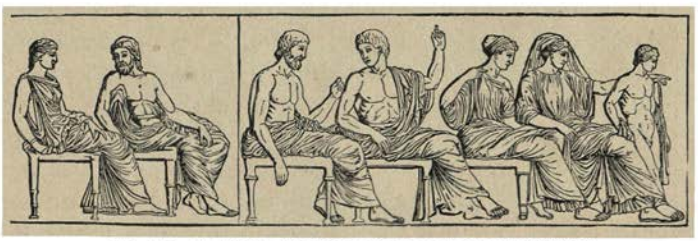


FIG. 148.—FIGURES ON THE FRIEZE ON THE PARTHENON.
See pages 223, 225, 281, 282, 396.

statues with exclusive reference to form, or with no particular regard for significance—statues, for instance, like the "Venus Leaving the Bath" (Fig. 149, page 224), the sculptor of which is unknown, or even like the Apollo Sauroctonos (Fig. 20, page 48) or Venus de' Medici (Fig. 38, page 77), which are both supposed to be originals, or imitations from originals, by Praxiteles, who was at his prime about 360 B.C. Of large numbers of other statues, too, which, at first, might seem to belong to this latter class, it must not be forgotten that, as originally designed and placed, they also were members of

groups, which fact imparted to them a significance not now apparent. For instance, the Apollo Belvedere (Fig. 28, page 62) or the statue from which it and a very small ancient bronze, called from its owner the Stroganoff Apollo, are both considered to have been wholly or partly imitated, is now, by some, supposed, as suggested by a German scholar, Ludwig Preller, to have stood at the apex of the pediment of a temple at Delphi with the statue called "Diana à la Biche" (page 75, "The Genesis of Art-Form"), at one side, and that called "Athena of the Capitol" (Fig. 37, page 76), at the other side. This would be in accordance with the answer said to have been given when the Gauls approached Delphi, to the question of the people whether the treasures of the temple should be removed. The answer was: "I myself [meaning Apollo] and the White Maidens [meaning Athena and Diana] will take care of that." Besides this, all of the Greek statues, even when not in groups, were more or less literal reproductions of others that had been in groups, or with which in some way, at least, the Greeks had come to associate conventional meanings. The complete transition

FIG. 149.—VENUS LEAVING THE BATH: CAPITOL AT ROME.

See pages 76, 223, 225, 281, 282.

from conveying this conventional meaning to a condition in which they conveyed no meaning at all, took place only after the art had begun, in a very marked way, to decline. In the earlier reliefs and statues, for instance, both Bacchus and Venus were clothed, and characterized by the dignity becoming a god. A convincing proof of this is that almost all authorities—as a result, of course, of their study of these earlier representations—agree that the fourth form from the right, in Fig. 148, page 223, which is a copy of some of the figures of the gods carved on the frieze of the Parthenon at Athens, represents Bacchus, and that the third form from the right represents Venus. Nor was this dignity wholly dropped when, as in the so-called Venus of Milo, the desire to portray the human form first began to assert itself so strongly as to cause the artist to drop the clothing. But, later on, Bacchus was represented as in a state of intoxication, and Venus as nothing but a well-shaped woman (Fig. 38, page 77, and Fig. 149, page 224), and sometimes even as a wanton. But, at this period, when it had been forgotten that there was any need of significance, in representing the gods, or of any, at least, worth considering, art was not at its best. As Wyatt says, in his "Fine Art": "The culminating point of excellence has always been found in the art at that stage of its development in which the sculptor has acquired his highest powers of direct imitation consistent with his retention of command over and power of adhering strictly to broad generalizations. Need I point out to you that the perfection of such a stage was found in the age of Pericles in Greece, and remains for ever written upon the surface of every fragment of the sculptor's art which has come down to us from that illustrious period."

In the latest Greek and Roman art, comparatively little attention was paid to anything except the imitation of form. But after the Christian era, there came a change. Religious ideas took such possession of men that to symbolize these became their chief aim; and for fully six centuries nothing was produced indicative of a careful study of the appearances of nature. About the end of the twelfth century, however, there came another change. In the Gothic cathedrals of northern Europe (see Fig. 150, p. 227, representing an ornamental arcade, from the chapel of the palace at Holyrood, Scotland, dating to the latter part of the thirteenth century), the forms carved in stone, which, up to that time, had been conventional (see page 388, also 390), began to give place to the literal reproduction of leaves, flowers, and human faces; and in Italy and Holland the forms in paintings gradually came to be more and more like those of the external world. In the great works produced by Raphael (see Fig. 39, page 79) and by the painters of his period about equal attention seems to have been given to the representation of mental conceptions and of natural appearances, and from that time to the present, this may be said to have been characteristic of all the painting and sculpture of the Europeans and their descendants in our own country. It may be said, too, that the rank assigned to individual painters has usually been determined by the degrees of their success in meeting the demands of both phases of representation. The figures of Benjamin West and Julius Schnorr, for instance, are arranged more effectively than many a most spectacularly significant climax in a drama: those of Balthasar Denner and Florent Willems manifest the most scrupulous regard for the requirements of line and color. Yet because exclusive attention to either sig-

nificance or form led all of them to neglect one of the two, they never can rank with artists of which this was not true—Raphael, Titian, and Rubens.

It is evident, however, that the possibility of having the attention turned in one or the other of these two

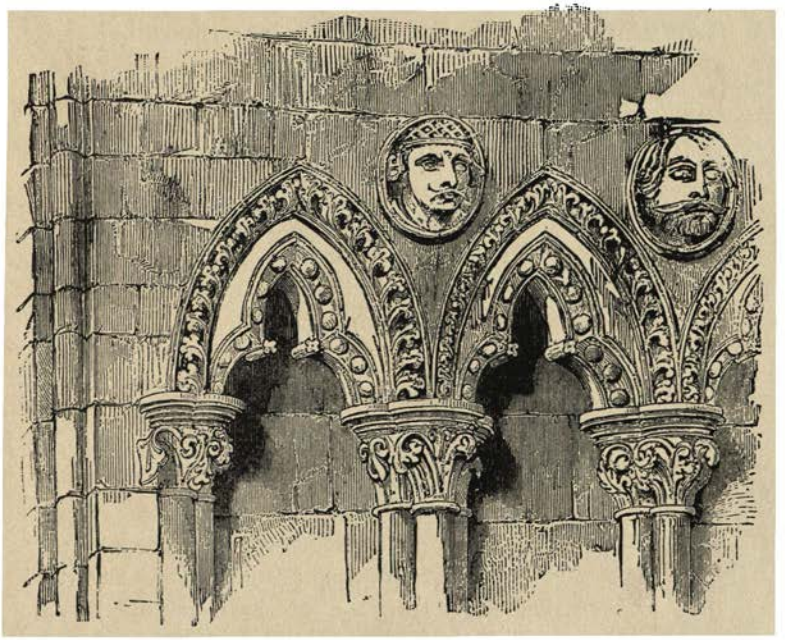


FIG. 150.—ORNAMENTAL ARCADE FROM THE CHAPEL OF PALACE AT HOLYROOD, SCOTLAND.
See page 226.

directions involves the possibility of two different practical methods in art not only, but of two different theories concerning it. According to one theory the art of a product is to be judged by the degree in which the artist excels in expression, *i. e.*, in arranging appearances so as

to suggest definite thoughts or to awaken definite emotions. According to the other theory, it is to be judged by the degree in which he excels in imitation, *i. e.*, in producing an exact resemblance to the outlines and colors of nature. As shown in "Art and Theory," there is a way of reconciling both theories; but human minds, as a rule, have so narrow an outlook that they can be depended upon to snatch a half-truth, if possible, and use it as a weapon against the whole truth. Whatever may have been the case in the past, an artist at the present time cannot compose upon the theory that significance is essential to the highest excellence in art without being stigmatized by certain critics as "literary"; nor can he compose upon the theory that imitative skill is essential to the highest excellence without being stigmatized by certain other critics as being "a mere technicist."

Of course, in some cases the use of these designations is appropriate; and, in all cases, it is easy to trace their genesis, and find some justification for them. To inveigh against the literary tendency in this art is a perfectly natural reaction against an attempt on the part of certain English and German artists of the early part of the present century, like West and Overbeck, not only to revive religious symbolic and allegoric painting, but to do this, apparently, upon the supposition that a subject capable of being made impressive by an elaborate explanation, or story indicating its intention, can compensate for an indifferent style, an idea subsequently developed by the English Pre-Raphaelites and in the *genre* pictures of the followers of Von Schadow at Dusseldorf. On the other hand, to inveigh against exclusive attention to technique is an equally natural reaction against the exceedingly tame and unimaginative effects produced by

mere imitation, such as we find in many of the French pictures. No amount of care expended upon the portrayal of tint or texture in foliage, clothing, or flesh can

FIG. 151.—THE GIRLHOOD OF THE VIRGIN MARY. ROSSETTI.
See pages 230, 252, 295.

satisfy the artistic ideals of certain minds. They refuse to admit that great art can ever result from any possible elaboration of small subjects.

It is important to notice, however, that, although what is said against either of these tendencies may be true, so far as it excludes the other, there is nothing to indicate any necessity of its excluding this. Indeed, an endeavor to analyze the interest awakened by almost any picture will reveal that it is necessarily related somewhat both to significance and to form. For instance, the title of "The Girlhood of the Virgin Mary," by Rossetti (Fig. 151, page 229), proves that it is intended to interest us in the subject which it is designed to represent, and, even, as indicated by the halo around the dove and the wings on the child, to symbolize. Nevertheless, that which gives the picture its main interest in the history of art, is its literal reproduction, in the pre-Raphaelite manner, of the special details of appearance. Here, therefore, is a picture designed to be significant, which owes its main interest to its form. Again, who has been more lauded for drawing his inspiration directly from the appearances of nature than J. F. Millet? Yet in his picture of "A Storm" (Fig. 152, page 231) the chief interest is owing not to anything that the artist did see or could see in appearances about him; but to the representation of significance suggested to him as possible in connection with appearances.

These pictures have been chosen for illustration because, in both of them, may be noticed a tendency which needs to be developed only slightly in order to reveal itself to be clearly detrimental. Owing to his conceptions of the requirements of form, Rossetti has chosen to ignore much that has been supposed to have been learned since the Pre-Raphaelite period; and owing to his conceptions of the requirements of significance, Millet has chosen to ignore much that has been supposed to have been learned since the period of the early landscape artists. As a result.

231

FIG. 152.—A STORM. MILLET.

See pages 230, 253, 259, 260, 295, 300.

for a different reason, primarily, both border upon unnaturalism, the one because of attention to the particularities of form, and consequent emphasis of details, which causes a suggestion of stiffness of style; and the other because of attention to the general effects of significance, and consequent slighting of details, which causes a suggestion of looseness of style; and both of them, but apparently for different reasons, have produced results suggesting those characterizing the art of China and Japan. Under these apparently different reasons, however, there is a single reason. This is the failure of both painters to give equal attention to the claims of significance and of form. Rossetti tries to make his picture significant through paying attention, primarily, to the particularities of forms, but these are grouped according to a tendency so lacking in representative suggestiveness as almost to prevent them from being significant. Millet tries to make his picture a transcript of a natural storm through paying attention, primarily, to the general indications of significance; but his forms, considered aside from their groupings, show a tendency so lacking in representative imitation as almost to prevent their recalling actual appearances. It is evident, too, that if the tendency in either picture were carried a little farther, it might become in every sense unrepresentative, conveying a satisfactory impression neither to the mind nor to the senses.

Of course, almost every reader of this book will feel inclined to say that such a result is not supposable in the art of our own time and country. But why is it not? Notice Fig. 153, page 233. No one can deny its essential cleverness and ingenuity. Nor is it sufficiently unrepresentative to be refused classification among specimens of representative art. But when one hears art-critics term-

Printed by permission of the Artist.

FIG. 153.—COVER OF THE CATALOGUE OF THE AMERICAN WATER-COLOR SOCIETY, 1895.

See pages 232, 234.

ing it, by way of distinction, "artistic" and "very artistic," how can he refrain from feeling that, the next time these terms are used, they may be applied to what is distinctively inartistic? As regards significance, the splashing water and peacock represent water-color only by a sort of symbolic pun; and, as regards form, the foliage, bird, and woman, with the wetting that she is giving her skirt, all show a very decided bias toward the unnatural side of the conventional. "But what harm can this do?" may be asked. No harm, perhaps, unless the same tendency be carried farther. But will it not be? As a proof that, unless checked, it certainly will, let any one glance at the illustrations in the new English magazine, "The Yellow Book"; and then in humiliation read over the names of hitherto reputable authors who have been beguiled into allowing their writings to be printed between the covers of a periodical started for the purpose of making such illustrations popular. We are told that these are specimens of a new style of art. In reality, they are specimens of a style of no art whatever, if by the term we mean that which is art in the highest sense; and this for the very evident reason, which those who have followed the lines of thought in this so-called unpractical series of essays, will at once recognize, namely, that such products fail to represent either mental conceptions or natural appearances. The fad which they exemplify furnishes merely one more of many inane manifestations of Anglo-Saxon affectation, the same trait, exhibiting the same inability to perceive the essentially ethic as well as æsthetic connection between a thing to be expressed and a representative method of expressing it which, for years, has made two whole nations speak inarticulately and spell irregularly, and, to-day, is making so many wear monocles, carry canes dirt-end up-

FIG. 154.—EASTER ADVERTISEMENT OF THE GORHAM MANUFACTURING COMPANY.

See page 236.

ward, and shake hands as if, forsooth, they could not get over habits acquired in clasping the fingers of court ladies holding on their arms heavy trains at the queen's receptions. There is no more art in what the draftsmen of this "Yellow Book" suppose to indicate it than there is heart in what so many of their patrons now suppose to indicate a hearty welcome.

Failing to obtain an illustration of one of the drawings of Aubrey Beardsley, the chief offender in the "Yellow Book," the author has been enabled, through the courtesy of the well known Gorham Silver Manufacturing Company to use their Easter advertisement for 1895 (see Fig. 154, page 235). Though far less objectionable than some of Beardsley's drawings, it evidently belongs to the same school, and suggests, as they do, the Chinese and Japanese method from which—though without the representation of significance which usually in part redeems this method—it is imitated. As a symbol of artisanship, Fig. 154 can be argued to be as excusable as it certainly is striking. But notice how, for the reasons just given, it is entirely outside of any possibility of being rightly classed with the higher representative arts. Yet possibly three fourths of those who see it do not recognize this fact. Why should they?—when the drift of artistic taste in our country is so decidedly drawing them in a direction to prevent them from doing so. It is true that we have no "Yellow Book"; but we do have illustrated magazines; and some of them, like those published by the Harper Brothers and The Century Company have in the past exerted an influence so excellent as to have earned a right to be considered authoritative in matters of art. But what kind of taste are men cultivating to-day? It is safe to say that, twenty-five years ago, no American publishers

of respectable standing would have allowed their imprint to appear on the same page with the artistic vulgarities which our foremost firms are now flaunting upon one's eyes from the posters and even covers of their periodicals; nor, if so flaunted, would any one, old enough to live outside a nursery, have looked at such effects a second time. But now they are supposed to commend themselves to the taste of several millions of people, many of whom, after the schooling that they have received through gradations downward to the present low level, are actually expected to think them interesting and, if critics, to speak of them as artistic! Nor is there any commercial excuse for this abuse of artistic opportunity. It seems to be owing to sheer æsthetic wantonness irresponsibly debauching popular taste. A single glance at the covers of "Borderland," for instance, will show any one of sense the feasibility, at least, whatever may be thought of certain details, of uniting significance and form so as to render even a commercial feature highly artistic.

Does this comment seem to involve treating evident absurdities too seriously? Does any one feel prompted to excuse them because they are merely manifestations of a species of play? So, as shown in Chapter VII. of "Art in Theory," is all art. The point to be observed is that the manner of the play reveals the matter of the art-conception. Besides this, it is important to observe, too, that, owing to the necessarily imitative action of the mind in connection with all art-development, nothing can degenerate quite so rapidly, when allowed once to start in the wrong direction, as art can. If any one doubts that we are getting ready, at short notice, to take a stride all the way back to the artistic conditions of the middle ages, it might be well for him to ponder the facts just men-

tioned. Why are they facts? There can be only one of two reasons,—either because too few inventive brains are left among our artists to give us products representative both of mind and of nature; or else because too few æsthetic brains are left among our patrons of art to make demands upon the artists which will necessitate their finding out exactly what art is.

CHAPTER XIII.

REPRESENTATION OF MENTAL CONCEPTIONS IN PAINTING AND SCULPTURE.

Our Interest in Objects of Sight is Influenced by their Effects upon our Thoughts and Emotions—Bearing of this Fact upon Representation in Painting and Sculpture—Bearing of the Same upon the Use of the Term, The Humanities—Practical Reasons for Disregarding the Importance of Significance—Attention to Significance not Inconsistent with Equal Attention Given to Form—Nor Attention to Form with Attention to Significance—Theoretical Reasons for Disregarding the Importance of Significance: Lessing's Theory—The Truth of this not Denied in these Essays—The Real Meaning of his Theory—The Principle Underlying it—The Reasons Underlying this Principle—Pictures that are not Able to Interpret themselves—When a Picture is truly Literary—Illustrations—Events, though they should not be Detailed in Pictures, may be Suggested.

IT is impossible to take very great interest in a face, or figure, or even in a view of rocks, or foliage, or water, except as something in the expression of the face, or in the attitude of the figure, or in the arrangement or general effect of the objects comprised in the view, *strikes* us, as we say. This is a graphic way of representing the fact, that thoughts and emotions are stirred to activity when the eye perceives objects, just as inevitably as rays of light surround a match when it is struck. Inseparably, in such cases two elements of interest are present. One is the result of the effect perceived by the eye; the other, of the ef-

fect experienced in the mind. This latter effect consists of imaginative experiences which, according to the methods unfolded in Chapter I., are suggested by way of association or of comparison. It is when faces appear to be thinking or feeling something, when figures, alone or in connection with other figures, appear to be doing something, when fields, houses, hills, waves, clouds, give indications of culture, comfort, convulsion, storm, or sunshine, whatever it may be,—it is then, and in the exact degree in which this is so, that the objects in connection with which we have these suggestions prove most interesting. The worth of a diamond is measured by the quantity and quality of the light emitted by it. The worth of an object of perception is measured by the quantity and quality of "that light which never was on sea or land"—in other words, by the amount and character of thought and emotion which it awakens.

If this be so—and who can deny it?—why does it not follow that the art which represents these visible objects can be successful in the degree only in which it represents also the thought or emotion upon which so much of their interest depends? Such certainly must be the conclusion of all except those who pretend to hold a theory which even they themselves do not seem to understand, namely, that, given the art-form, the art-thought appropriate for it will be suggested necessarily. As a critic of "Art in Theory" took occasion to say: "Art is simply, wholly, and entirely a matter of form. . . . The best critical judgment opinion, nowadays, assumes the identity of the art-form with the art-meaning." The only trouble with this answer is that, in the sense in which one would naturally interpret it, it is not true. All art-significance must be expressed through art-form; but precisely the

same natural form selected for art-imitation may convey a very different quality of significance according to the treatment given it by the artist. One thing that he can always do, is to arrange features so as to make them express what he wishes them to express. It is always possible for him to analyze and separate a form charming in itself from a significance which could make it still more charming. He can paint a face in such a passive condition that it will appear to have no mind behind it; or he can rouse his model to reflection or laughter, or imagine for himself the results of these, and transfer from the face to his canvas only such colors and outlines as give one a glimpse of the soul. Still more can he do the same when it is possible, in accordance with the principles of pantomime, to arrange for his purposes the pose of the whole figure; and the result may be rendered yet more effective through the opportunities afforded by the mutual relations, each to each, which may be indicated through the poses of several figures. The same principle applies also to landscapes. It is one thing to represent the material effects of sunshine and storm, and another thing to represent their mental effects,—the effects which they have upon the imagination; and a painter can content himself with doing the first, or, if he choose, he can do both. This is not to say that, if he do merely the former, his product will have no significance. Wherever there is form there is some significance, if only because there is a lack of it. What is meant by the ground taken in this paragraph is that unless the artist have it in mind to represent significance, his work, as a rule, will reveal only such as is of trifling importance, such as has no distinctive meaning; and art that is not distinctive in a direction in which it might be so, is not art of a high quality.

Or look at the subject in another light. Instead of considering particular works of art, as they appeal to individuals, take them collectively, as they appeal to men in general. What do men call them? One term, almost universally used, is "the humanities." Would this term have been used by way of distinction unless it had been thought possible to suggest in the art-work all the highest possibilities of humanity? Certainly not. But is there any highest possibility of humanity which is not connected with the human mind? Certainly not, again. But what is the mind? What but a reservoir of thought and emotion ever on the alert to detect significance in everything that is seen, and to express this in everything that is handled? And what is a human mind? A mind in a body, not so? And this body is a combination of nerves and muscles, sensitive to every phase of apparent form, and capable of being trained to an almost limitless extent in the direction of reproducing it. The arts, therefore, which are distinctively the humanities, must involve both the expression of significance and the reproduction of form.

Why then do any hold an opposite theory? First, undoubtedly, because of a practical reason. This is grounded, too, upon their own experience. We judge of others by ourselves. We judge of their art by the art which is possible to ourselves. While great art requires great breadth of view and distance of aim, the majority of men are not great. Their views are narrow, and their goals are near them. When their attention is directed to significance, they forget to attend to the requirements of form; and when attention is directed to form, they forget about significance. That which they themselves do, they naturally suppose that everybody must do. Human nature being what it is, they naturally come to think too that

this is what everybody ought to do. For, unless they are to admit that they, themselves, are not entitled to rank with artists of the foremost class, what can be allowed to determine excellence in art except their own standards? At periods like the beginning of the present century, or in countries like England or Germany, where value in art is mainly thought to be determined by significance, significance becomes the aim; and in the degree in which men are forced to recognize that there can be no accurate reproduction of an appearance without what they lack—*i. e.*, thorough study of the best methods and facility acquired by practice—they will be anxious to convince themselves and to persuade others that mastery in significance can compensate for a lack of mastery in technique. On the other hand, at a period like the present, and in countries like France and our own, where value in art is mainly thought to be determined by success in reproducing an appearance, they will aim to do this; and, in the degree in which they are forced to recognize that significance cannot be given to an art-product without what they lack—*i. e.*, great constructive powers of imagination—they will be anxious to believe for themselves, and to persuade the world that success in technique can compensate for success in rendering the product significant.

But, to go back to the opinion from which these last views are deductions, is it a fact that attention to significance is inconsistent with an equal degree of attention given to form? Why should this be the case? In poetry a metaphor or simile is not less but more successful in the degree in which to the representation of the thought involved it adds fidelity to the scene in nature by a comparison with which this thought is represented. Notice the italicized words in the following:

And multitudes of dense, white, fleecy clouds
Were *wandering* in thick *flocks* along the mountains,
Shepherded by the slow, unwilling wind.
—*Prometheus Unbound*, ii., 1 : *Shelley.*

I 've learned to prize the *quiet lightning* deed ;
Not the *applauding thunder* at its heels,
Which men call fame.
—*A Life Drama*, 13 : *Alex. Smith.*

Still as a slave before his lord,
The ocean hath no blast ;
His great bright eye most silently
Up to the moon is cast.
—*The Ancient Mariner : Coleridge.*

I should make very *forges* of my cheeks,
That would to *cinders burn up modesty*,
Did I but speak thy deeds.
—*Othello*, iv., 2 : *Shakespear.*

This battle fares like to the morning's war,
When dying clouds contend with growing light ;
What time the shepherd, *blowing of his nails*,
Can neither call it perfect day nor night.
—3 *Henry VI.*, ii., 5: *Idem.*

The same principle applies to accuracy in the imitation of forms which in painting and sculpture also may embody significance. In this and two following chapters we are to treat of the representation of significance ; and in Chapter XVI. of the representation of the appearances of nature. There is nothing inconsistent in insisting upon the possibility and necessity of giving equal attention to both.

But, just here, we are reminded that, besides this practical reason underlying the theory that significance and form are not equally essential in the art-product, there is, as urged, especially in our own time by those who term

the representation of thought in art "literary," a supposed philosophical reason. This is presumed to be a logical inference from the conclusions reached by Lessing in his famous criticism, defining the limitations of poetry and painting, entitled "The Laocoön." According to him, the subject of poetry, because this is presented in words that follow one another in time, should be confined to that which in nature is presented in time, as is the case with events described in stories. The subject of a painting or a statue, however, because this is presented in a material that exists in space, should be confined to that which in nature is presented in space. "This," say these artists and the critics who uphold them, "is an acknowledged principle in art; and pictures which tell a story violate it. Therefore it is that, when they do this, we term them 'literary,' and, in doing so, we imply, and have a right to imply, that they are inartistic."

But is it not possible that one may acknowledge the general truth of Lessing's theory, and yet deny the legitimacy of the special application of it which is made in this particular case? Not only is the general accuracy of Lessing's theory acknowledged in "Art in Theory," but a correlated and confirmatory theory is advanced, derived from the requirements not merely of the external medium in which the subjects of these arts are presented, but also of the mental condition in which they are originated. In Chapter XIX. of that book it is said that, in the phase of consciousness represented in poetry, the man thinks of certain scenes in the external world because they are suggested, not by anything that he is actually, at the time, perceiving there, but by his own recollections of them as they exist in thought. To one likening his actions in a battle to that of Wellington at Waterloo and of Grant at

Vicksburg, these men are not really present, only ideally so. As objects of thought they are not outside of his mind, they are in it. For this reason, any descriptive details are out of place in poetry other than those of such prominence that a man observing them may reasonably be supposed to be able to retain them in memory ;—other than those, to state it differently, which are illustrative in their nature, and truly representative, therefore, of ideas within the mind as excited to conscious activity by influences from without. There is, of course, a certain interest, though sometimes not above that which is merely botanic and topographic, awakened by minute descriptions of flowers and fields such as a painter on the spot would be able to give while scrutinizing them in order to depict them. But this interest may be just as different from that which, in the circumstances, is æsthetic, as it would be were it merely didactic or dogmatic. On the contrary, in the mood represented in painting, the man thinks of external scenes because they are actually before him. He is clearly conscious therefore of two different sources of thought—one within, the other without. The objective world is really present. If he wish to represent this fact, therefore, he cannot use merely words. Words can contain only what is in the mind, or ideally present. In order to represent in any true sense what is really present he must use what is really before him, *i. e.*, an indisputably external medium, as in painting, sculpture, and architecture.

These statements are a proof that, whatever may be said here is not, at least, supposed to go contrary to the general theory of Lessing. But, in order to understand that it does not, one must first perceive exactly what Lessing meant. To do this, so far as concerns the more

superficial application of his principle, is not difficult. He meant, of course, that painters should not attempt to portray different events supposably occurring at different periods of time. He meant that nothing should be delineated not supposably perceptible at one and the same

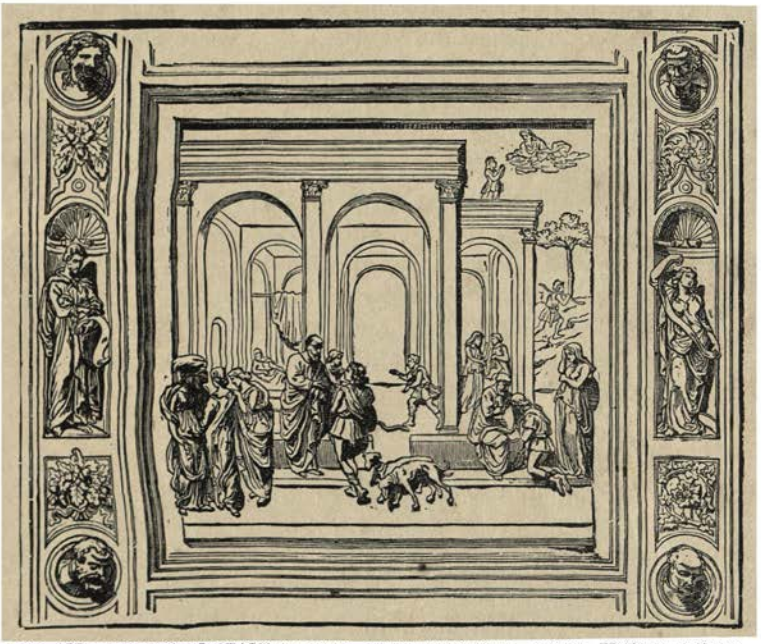


FIG. 155.—EPITOMIZED STORY OF ISAAC, JACOB, AND ESAU. RELIEF FROM BAPTISTRY, FLORENCE. LORENZO GHIBERTI.

See pages 248, 286, 302.

time. His principle would rule out, therefore, as unfitted for representation in painting, a great many religious, symbolic and even historic paintings, most of these produced in earlier ages, but some also in our own age. In the Vatican, for instance, there is a Greek manuscript which

represents the life of Joshua in a series of illustrations which, like the reliefs in Trajan's column, form a continuous band. In the "Adoration of the Magi" by Bernardino Luini, we see not only the Magi bowing before the infant Christ in the foreground, but also have a view of their journey from their home, represented in a line of horses and camels heavily laden descending in a zig-zag pathway the side of a hill in the background; and in the same painter's "Presentation at the Temple," besides this ceremony in the front of the picture, in the rear of it is shown us the flight of the holy family into Egypt. So, too, in the single relief from the "Baptistry of Florence," by Lorenzo Ghiberti, an epitome is presented of the stories of Isaac, Jacob, and Esau, all three (Fig. 155, page 247). Again, in the Staircase Hall of the "New Museum" at Berlin, there are six large allegorical paintings by Kaulbach. In that one of them entitled "The Destruction of Jerusalem," characters are brought together all the way from the time of Isaiah through that of Titus to that of the Wandering Jew. In the one entitled "The Age of the Reformation" we have Wycliff and Calvin, Hans Sachs and Shakespear, Leonardo da Vinci and Kaulbach himself. In an analogous way, in "The School of Athens," Fig. 156, page 249, Raphael has placed not only Greek philosophers living at different periods but the Persian Zoroaster, and even, in the largest figures at the extreme right, himself with his master, Perugino. Whether these paintings violate the principle of Lessing, and, whether, if they do, they deserve censure, is of course, an open question. Some would argue that those of Kaulbach and Raphael at least do not. They would say that to bring together characters living at different periods involves no violation of Lessing's principle because it is

249

FIG. 156.—SCHOOL OF ATHENS. RAPHAEL.

See pages 201, 248, 272, 287.

possible and probable that the imagination, in summoning before its vision, the "Destruction of Jerusalem," or "The Reformation," or "The School of Athens," would do the same. They would argue, besides this, on the principle that the "proof of the pudding is the eating," that, as a fact, these very pictures are greatly admired, and therefore actually do satisfy æsthetic tastes.

These considerations suggest that, underlying Lessing's theory, may be a principle more important than that which is fulfilled as a result of a mere literal interpretation of it. A picture is something perceptible in a moment of time. To represent with accuracy anything true to this condition, all the æsthetic interest attaching to its form or to its significance should be suggested through factors all of which are supposably perceptible at this moment. In the "Presentation at the Temple" by Luini, mentioned on page 248, this principle is clearly violated; because it is impossible to suppose that the same family at precisely the same time should be in the temple and also, as is represented, engaged in fleeing to Egypt. With reference to the pictures of Kaulbach and Raphael, on the contrary, it may be argued that the principle is not violated, because in no case are the same characters represented as doing different things at the same time, and, though some of the men lived at different periods in history, they are represented in the picture as all living at the same period.

A further consideration, justifying the æsthetic interest excited by these latter pictures, will be mentioned presently. Just now the most important suggestion forcing itself upon us is that, possibly, Lessing's principle has not been thoroughly understood; and that, if it had been, certain apparent violations of it would not be deemed so

in reality. Let us ask, then—for we must never forget that a principle cannot be applied successfully, except as one understands the reason underlying it—let us ask what was the reason underlying Lessing's principle—What was it but this? He objected to pictures necessitating the delineation of successive events because they attempt the impossible. Successive events are never perceived at one time. Therefore they cannot be represented at one time, and a picture which attempts to represent them thus is unnatural; and—largely because it is so—cannot be understood without an explanation. Nobody can understand Luini's "Presentation in the Temple," described on page 248, unless some one tells him, or he himself discovers, as a result of no little thinking, that the same family represented as in the temple subsequently undertook the flight into Egypt. Lessing's idea was that a painting should not need such an explanation; that, as a work of art, it should embody the source of its own interest; that it should be able, in all cases, to interpret itself.

But suppose that, for the reason which Lessing gave when he said that it should present only that which could be perceived at one time, or for any other reason, the picture is not able to interpret itself. Then it needs an explanation. Such an explanation is necessarily made in words, and, often, in printed words. Words, whether printed or not, are the substance of literature. A painting which cannot be of interest until one is made acquainted with the literature of the subject, until one has read or heard the words of a story which it is supposed to illustrate—what is this?—What, but a painting which may be said to owe its interest to literature; and in this sense a painting that is "literary." It is to subjects of such paintings

that John Opie, in the second of his "Lectures on Design," refers, when he says that they "are incapable of affording more than a bald and insipid representation on canvas. Of this description is the incident in the Iliad, where one of Priam's younger sons, fallen before the superior force of Achilles, solicits his life on account of his youth. 'Wretch,' exclaims the furious hero, 'dost thou complain of dying when thou knowest that Achilles must shortly die?' Such also is the celebrated passage in Corneille's 'Horatii,' where the father of one set of the combatants, on being informed that his son, left single against his three antagonists, had turned his back, appears much agitated and enraged; and when one of his attendants asks, 'What should your son have done?' instantly retorts, 'He should have died.'"

According to what has been said, it will be perceived that the term "literary," as one of disparagement, is rightly applied to pictures that need to be interpreted by a verbal story; in other words to pictures that do not represent their own story. But is this what is meant by those who, in our own time, most use the term? No; but often the opposite. The term is applied to pictures that do represent their own story; and because they do this (See page 270). Thus a deduction from Lessing's principle is employed in order to disparage the very kind of pictures that he would have commended. Nor is it the first time that inability to interpret the spirit of a law beneath the letter of it has caused the disciples of a master to suppose themselves to be following his lead, when they are going in diametrically the opposite direction.

Nor, even when following his lead, do such disciples know why they do it. Most of them would probably term "literary" the pre-Raphaelite "Girlhood of the Virgin

Mary" (Fig. 151, page 229); and would do this on the ground that it's interest is made dependent upon a story. But upon what story? Upon one that the picture represents? No. The picture is literary; but it is this because it does *not*—as they phrase it—"tell a story." It is an attempt at representative art which fails because it does not represent. No one can understand what it means without being acquainted with the literature of the subject, without having read or heard elsewhere the story of the Virgin Mary. On the other hand, some of the same critics would commend Millet's "Storm" (Fig. 152, page 231), as not literary on the ground that it does not "tell a story." In this case, as in the former, they would be right in their use of the term, but wrong in the reason assigned for it. The picture is not literary; but the reason is, that it *does* tell, or, more strictly, *represent* a story. Notice, also, that in this story of the storm are conveyed very distinct impressions of a series of events involving sources and results which could be developed only in time.

But notice, too, that these series of events are not delineated in detail; they are merely suggested. It is for this reason that they do not go contrary to the principle of Lessing. In the method of imparting the suggestion, there is no attempt to accomplish the impossible. And notice, again, that this suggestion is the source not only of the psychical effect produced by what we have termed significance, but also of a certain physical effect, which we term variously force, animation, life, or virility. It is not too much to say, therefore, that a suggestion of this kind is not only legitimate in paintings and statues, but essential to certain characteristics without which they cannot manifest the highest excellence.

CHAPTER XIV.

FORMS OF PAINTING INTERPRETIVE OF THEIR OWN SIGNIFICANCE.

The Possibility of Significance and the Need of Explanation—Quantity and Quality of Significance as Determining Artistic Excellence—Subjects as Determining the Rank of Products—Execution as Determining the Same—Flowers and Fruit—How made Representative of Significance—Landscapes—How made Representative of Significance—How still more of the Human Element may be Introduced—Other Examples—Figures and Faces of Men—Portraits—Characteristic Portraiture—Representative of the Artist's Thought and Emotion—Ideal Portraiture—Genre Paintings—Symbolical, Allegorical, and Mythological Paintings—Historical Paintings—Examples.

THE final paragraph of the preceding chapter will suggest two questions to those interested in the subject, both of which must be answered before this can be fully understood. One question concerns the possibilities of significance, and the other those of explanation. It may very naturally be asked whether all appearances represented in painting or sculpture can be made significant in themselves, and also whether all explanations depending upon acquaintance with the literature of a subject are to be denied legitimate influence in securing the æsthetic effect.

To the first question—namely, whether all appearances imitated in painting or sculpture can be made significant in themselves, one can only give the answer suggested on

page 241. They certainly can be, for the very evident reason that the mind always derives some thought or emotion from every perception whatever. The general fact, therefore, of a certain degree of significance must be admitted. What is denied by some and is asserted here, is that the artist has it in his power, by way of selection and arrangement and general methods of imitation, to increase the quantity and quality of the significance; and that the excellence of his art must be judged by the way in which he exercises this power.

As applied to the subjects represented, for instance, do we not all recognize that there is a difference between these; and that this determines the difference in the rank of art-works? Why has the world seldom, if ever, assigned the same rank to painters of merely flowers or fruits or even of landscapes, that it has assigned to those, like Raphael, Titian, or Rubens, who have depicted the human figure? Why are the greatest names in the history of sculpture those whose statues are of men? It is as difficult—not only so but, sometimes, because their laws of proportion have been less studied, more difficult—to model the forms of animals. Evidently, the world in general judges of subjects by the possibilities of significance in them. There is both greater opportunity and necessity for manifesting thought and emotion in connection with a landscape than with a dish of fruit or a vase of flowers; and in connection with human figures than with landscapes.

This statement does not render it necessary to deny that many pictures of fruits and flowers are much superior, as works of art, to many pictures of human figures. The theory of this series of essays is that, in estimating the quality of the art, one must always consider both the way

in which it represents significance, and the way in which it represents appearance; and that success in one of these regards will not compensate wholly for failure in the other regard. A painter may try to depict human figures and produce far less artistic results than others who paint only cabbages. Indeed, even as regards the significance suggested, he may be less successful. All that is meant here is that, in case of equal skill in the imitation of form through the use of pencil, brush, or chisel, the art-work ranks highest which necessitates and, as practically applied to the product, manifests thought and emotion of the greatest quantity and the highest quality. Of course, this principle enables us to rank as subjects not only flowers and fruit below landscapes, and landscapes below human figures, but to rank below others certain products belonging to paintings of each class. In the latter mode of ranking, however, it is not the subject that causes the difference, but the particular treatment of it. Let us consider, now, how subjects of the same general character may be ranked differently according to the way in which the treatment affects the quantity and quality of significance.

First of all, flowers in a vase, oranges, grapes, or apples in a dish, or wine or beer in a glass,—all these may be portrayed so artistically as to be exceedingly beautiful and worthy of a place in the foremost galleries. But it is easy to perceive that the appeal of the picture as a thing of significance may be differently determined by different circumstances. A man, brought up where flowers and fruit abound, if living temporarily in Greenland, or where he cannot get them, will probably find the picture more significant than one who has never been familiar with them or is living where he is not deprived of them. But

what have such conditions to do, it may be asked, with the picture? Are they not wholly extraneous to it? No, not necessarily. It is possible for the artist to embody in the picture the principle underlying these conditions, and thus to make the picture itself significant of them or of some similar conditions.

For instance, a vase of flowers represented as being in a room upon the sill of a closed window, beyond which, outside the house, can be seen snowdrifts and frost-laden trees; or fruits and viands represented as being heaped upon a table notwithstanding a half-empty plate and glass and an unfolded napkin giving evidence that some one has already partaken of all that he wishes, with, perhaps, a window near by, through which a half-starved face of a child is wistfully peering,—arrangements like these, or hundreds of a similar character, which might be thought out or felt out, would put thought and emotion into the picture; and thus make it representative of these. Can anybody deny that pictures thus made significant by means of arrangement, if equally well executed, would rank higher than pictures merely imitative? Notice, too, that in the degree in which significance is thus introduced into a painting, it necessarily calls attention to something that could not be suggested by the objects if depicted merely as they exist in nature. This *something* is an effect of rearrangement in accordance with a mental purpose. The objects as reproduced in art are thus made representative of the artist, of man; and, therefore, it is that, in a true sense, the result may be said to belong to the humanities. If we could imagine a picture in which the imitation was so accurate that no one could tell the difference between it and nature, we should have a result that, on the surface, would not reveal itself to be the

product of a man. The effect would be indistinguishable from that of nature. But art is different from nature; and, interesting and desirable as is success in imitation, clever deception is not synonymous with artistic skill. It must not be forgotten that, beyond imitation, and not at all interfering with it, something else needs to be superimposed before the art-product can be crowned with that which is indicative of its having a right to the highest rank.

If this be true of representations of fruits and of flowers, it must be still more true of those of natural scenery. It is possible for a painter to imitate the outlines and colors of scenes that he sees before him, without reference to any consciousness of receiving or conveying impressions of thought or emotion in connection with them. Of course, all nature has some effect upon the mind, whether or not one is distinctly conscious of the fact. It is conceivable, therefore, that a picture composed with no higher purpose than that of exact imitation might prove—just as would the natural scene which it imitates—exceedingly significant. Many a man who desires to do no more than tell a good story in a tale or a ballad does this so graphically that it is as full of imaginative suggestiveness as if he had intended to make it so. The same result follows in landscape painting. The art of a product must be judged by the effect which it produces, not by the method of producing this. If a painter happen to select a suggestive scene, his imitation of it may be equally suggestive. But it is simply a fact, and one that needs always to be borne in mind, that notwithstanding some exceptional successes of this kind, no story-teller or painter can, as a rule, produce a series of successful products except as a result of an intelligent adaptation of artistic means to artistic ends.

An artist who has recognized the elements which make a scene suggestive will be more likely to select these than will an artist who has not. The suggestions naturally given by certain predominating sizes and shapes have been indicated in Chapters III. to X., and those given by certain predominating colors in Chapter XI. Now, with what has just been said, a glance back at Fig. 17, page 43, or 18, page 45, or 32, page 67, or 33, page 69, will reveal not only how probable, but how inevitable it is that every landscape should be significant of some phase of thought and emotion. Notice, moreover, that in the degree in which, in the art-work, the factors indicating significance are emphasized, as they are, for instance, in Fig. 17, page 43, or 152, page 231,—in that degree, attention is called both to that which the external world naturally suggests and, also, nor any less distinctly, to that which the artist, by his arrangements, has made his picture of it suggest; or, in other words, to human thought and emotion, and it is mainly these latter that make such a picture rank higher as a work of the humanities. When George Inness paints a winter scene with the dark radiating branches of the leafless trees in silhouette against a background of snow, a large part of our interest in the picture comes from the impression conveyed to us that the artist has discovered, and is pointing out to us, elements of beauty of which we have never before thought, and which, consequently, we have never before seen. The same is true of the twilight effects of Corot.

There are other landscapes in which the human element is emphasized still more decidedly. This is not to say that they are, therefore, absolutely better or greater. The rank of a work of art is determined not only by its aim, but by the degree in which it attains this aim, whatever it

may be; and the higher the aim, the more difficult often is it to reach. But just as a drama, if successful, is greater than a ballad, so a painting in which the representation of thought and emotion is directly necessitated, is greater than one in which this is not the case. "The Storm" of Millet (Fig. 152, page 231) is not a great picture; but it deserves a higher rank than it would otherwise deserve on account of the apparent human influence which has made a unity of its every suggestion. Even aside from the additional interest that may be imparted by explanations, the same may be affirmed, too, of Rottmann's series of encaustic paintings in the New Pinakothek in Münich. These represent the historic sites of Greece with such arrangements of sun and cloud, light and shade, that, in many cases, the very atmosphere of the work seems a part of the associations naturally awakened in the mind by the scenes presented. Ranking higher than these, are the landscapes of Ruysdael. In his "Landscape with Waterfall" in the National Gallery in London, the ground, trees, clouds, and atmosphere seems filled with water; and in his "Jewish Cemetery" in the Dresden Gallery (Fig. 157, page 261) the profound melancholy of the whole is only heightened by the contrasting light of the pale sunbeam that falls upon some of the tombstones, and of the rainbow in the rear. All things else,—the decaying gravestones, the decaying building, the decaying tree, barkless and crooked; and, not only these, but in strict analogy with them, the clouds and water too, under the influence of wind and current are all absolutely congruous in their effects. Ranking still higher, are some of the pictures of Claude and Turner. Ruskin contrasts the two painters to the disparagement of the former. But the crowning quality in each of them is really the same, namely, the

ability to represent thought and emotion through the representation of nature. It is not too much to say, either, that one who had read Ruskin, seeing for the first time certain pictures of Claude, would suppose them to be

FIG. 157.—JEWISH CEMETERY. J. RUYSDAEL.
See page 260.

Turner's, so exactly do they correspond to Ruskin's conceptions of the latter; or that seeing for the first time certain pictures of Turner, he would suppose them to be

Claude's. To illustrate equally what has been said of both, in Claude's "Morning" in the Dresden Gallery, we have represented not only in a yellow sky the dawn of the day, but suggestions of the dawning or beginning of many other things—as for instance, in a lake, the beginning of a river; in a shepherd playing on his pipe, the beginning of music; in a maid sitting beside him, the beginning of romance; in a basket, as yet unopened, covered with a white cloth, as well as in another maid, drawing water from a well, the beginning of social feasting; in a castle built in an early style, the beginning of art or architecture; in a city faintly seen at a distance, the beginning of civilization; in a group called the Holy Family, because of its resemblance to this, as conventionally depicted, the beginning of religion. A similar unity of effect is also apparent in Wouverman's "Cavalry Charge" in the same gallery where not only smoke and clouds but falling soldiers, burning castles, and men and horses all seem to be under the influence of the same conception of destruction.

The methods of suggesting thought and emotion noticed in these last two pictures, involves the introduction of living figures. This brings us to that department of painting in which the necessity of planning for significance is most unmistakable. Of living figures, first of all, perhaps, ought to be mentioned animals. That these may be made to represent significance needs no proof to any one who has seen any of the typical pictures of Landseer (Fig. 158, page 263). There are those who object to his way of indicating correspondences between the expressions and positions of dumb beasts and of human beings placed in similar circumstances. But the fact remains that he introduces the significance at which he aims with no detriment to his imitative effects. His dogs are

real dogs; and, besides this, no one can deny that his success in making them expressive of thought and feeling has added greatly to the characteristics making them interesting and charming; and this to those, too, who are qualified to judge of them as works of art. Usually, how-

158.—DIGNITY AND IMPUDENCE. LANDSEER.
See pages 262, 263.

ever, the forms of animals, as well as of inanimate nature, are rendered significant most effectively when presented in connection with the forms of human beings, as in Figs. 22, page 50; 35, page 72; and 94, page 152.

We now come to the faces and figures of men. Of

course, it is easy enough to perceive how pictures of certain of them should represent significance. But it is not clear that to do this is possible, or even desirable, for all such pictures; or that their rank should be determined by the degree in which they attain this end. In what sense, for instance, can a *portrait* of one whom we have not known, or the supposed portrait of some historic or mythologic personage, be made to tell its own story, or enough of a story to satisfy the demands of interest? How could either be made of interest aside from that which would fall under the general head, as we have interpreted it, of explanation?

Let us try to answer this question. Some portraits are certainly not interesting at all aside from what we know of the persons whom they are intended to portray. They may, too, be good portraits. But, according to the theory of this book, they are not portraits of the highest rank. These are interesting in themselves, interesting as pictures, aside from any resemblance to particular persons. Take the famous "Blue Boy" of Gainsborough—nothing but a full-length picture of a very pretty boy. How many care to know, before admiring it fully, whose portrait it is? Aside from any knowledge of this, or of the family to whom he belonged, who would not like to have it hanging always where he could see it? Why? Because it is typical of beautiful and graceful boyhood wherever it exists; and as such appeals by way of association and comparison to the thought and emotion of every one who has ever been a father, mother, sister, brother, or friend of youth. Or take Sargent's portrait called "Little Marjorie," which was in a recent "Loan Exhibition" of New York. Could not precisely the same be affirmed of it? It is not interest in the particular person represented that causes us to enjoy this picture,

but our interest in humanity in general. Or take any of the smaller Madonnas of Raphael. They appeal to universal sympathy because they are typical of motherhood and childhood everywhere. If the faces were ugly, to tell us that they represent the Virgin and her child would not make them appear beautiful or attractive; although, doing this, the explanation might enhance our interest in them. The same is true of historic, symbolic, and allegoric paintings. Who, that has had much experience in picture galleries has not been annoyed by the persistence of some in asking for explanations of every painting of this kind the moment that they set eyes upon it. No picture has the highest merit that cannot, of itself, interpret itself—sufficiently, at least, to make it of some æsthetic interest. One can find enough to admire in Kaulbach's "Destruction of Jerusalem" without any clear conception of what is its whole intent. In its right foreground, for instance, is a group of parents and children. We know that they are beautiful, and are escaping from the general catastrophe. By way of explanation, it has been said that the group represents the Holy Family. But it is a question whether any spectator ever experienced much increase of æsthetic pleasure on account merely of this explanation. The picture is supposed to be symbolical, but it is not too much to say that, as a picture, it is a success in the degree in which of itself it tells some part, at least, of an interesting story. The same may be affirmed of Guido's "Aurora," Fig. 34, page 71. To one having no knowledge of the myth upon which it is founded, the graceful beauty and vivacity of the horses, the driver, and the encircling maidens are of themselves sufficient to awaken a very great deal of æsthetic admiration and enjoyment.

But to go back to portraits. By the exercise of a little

brain-work it is always possible, in picturing a person, to introduce something which, without verbal interpretation, will represent, and enable the mind to recognize, his *character*. This causes what is termed ideal portraiture. Thus Long in "Art, its Laws and the Reasons for them," tells us that Reynolds, in his portrait of General Elliot, the British commander at Gibraltar in the year when it was attacked by the combined French and Spanish force, represents him in his military uniform with a key in his hands, indicative of the fact that the citadel was the key of the Mediterranean; while, in the distance, two squadrons engaged in battle, and behind him a cannon pointed downward, suggest the severity of the contest and the height of the fortress. It probably would have been better to have said that the keys were intended to represent the general's holding the fortress and not surrendering its keys, rather than to represent the fortress as the key of the Mediterranean. The latter conception seems to involve that of an embodied pun. Otherwise the description of the portrait is worth noticing. Observe, too, in this connection Macmonnies' statue of Nathan Hale in the City Hall Park, New York (Fig. 159, page 267). Can any one fail to recognize how largely its excellence is determined by the way in which it tells its own story—that of the spy, when bound for execution, manifesting the spirit expressed in the words, "I only regret that I have but one life to give for my country." More realistic, but faithful to a true conception of the character represented, is St. Gaudens' statue of Farragut on Madison Square, New York. But why was it not mounted on a realistic pedestal?—something to show the connection between the man and a ship, instead of an attempt at symbolism not in keeping with what is above it. Even the symbolism, too, in the circumstances, really means nothing.

Had the Americans believed in sea-nymphs or mermaids, and had the Admiral been drowned at sea, it might be different; but as it is, its lack of appropriateness was, perhaps, never so well paralleled as by the almost universal chorus of commendation that greeted it in the American art-journals when it was first unveiled.

The principle underlying what has been said, is that the artist with the brains to perceive the thoughts and emotions suggested by the character of a subject for portraiture and the skill to embody them in his product, can make it representative of these. As was shown in the cases, too, of fruits and

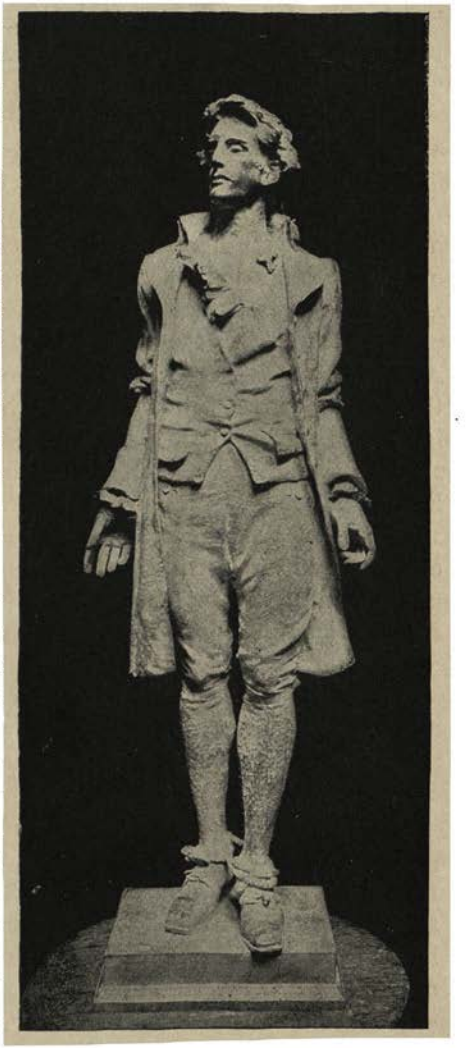


FIG. 159.—STATUE OF NATHAN HALE. MACMONNIES.
See pages 266, 281.

landscapes, he can make it representative not only of the thoughts and emotions ascribable to the person portrayed, but often too of those ascribable to himself. To illustrate how this may be done: Some years ago, there was a picture in one of the New York exhibitions, entitled "Flowers for the Hospital." It contained the figure of a young girl with flowers in her hand—nothing more. If, in the background, at the end of the path along which the girl was walking, there had been represented, however faintly, a hospital having patients seated in front of it, or sick faces gazing out of an open window—anything of this sort to tell the story, then, whatever there was in the face of the chief figure to indicate the destination of the flowers would have had some meaning. Moreover, in this case, the picture would have really meant "Flowers for the Hospital," and its subject would have been recognized without any label attached to it, in order, in an unsuccessful way, to make up for its lack in composition. Indeed, if well executed, a picture composed as has been indicated, and, in this case, merely because of its additional representation of significance—might have had in it the qualities of greatness; whereas, the title "Flowers for the Hospital" with the poverty of invention displayed, made this out of the question.

But notice now other possibilities in this same picture by way of portraiture. Suppose that, taking a suggestion from the well known features of Florence Nightingale, the painter, as justified by her appearance in mature life, had idealized her supposed youthful appearance, and called his picture "Florence Nightingale in Youth." The composition of the picture, even to those who had never heard of Florence Nightingale, would still have indicated "Flowers for the Hospital." But can any one fail to

recognize that, to those acquainted with her character, the poetic associations necessarily attaching themselves to the added significance, might have enabled the painting to attain a very high rank, impossible in other circumstances? Notice, too, that this rank would have been attained, just as is the case in every art, because this added significance would have been plainly attributable, not to the subject of the picture as perceived in nature, but to the picture itself as conceived by the artist. In accordance with this analogy, it may be said that when any portrait is to be painted, that of which the great artist thinks is not merely outline and color, but the thoughts and emotions which outline and color, in the particular face before him, can be made to suggest. He asks what is the character, and what is the influence upon the mind, of the particular character that is to be portrayed. Take a boy. If he be athletic in his tendencies, his character may be best brought out by standing him up in a lawn-tennis suit with a racket in his hand: if studious, by sitting him down with a book. In both cases, the pose can be made to tell its own story. In the latter case, if he be gazing up from his book with a dreamy, far-away look in his eyes, the picture, though a portrait, may be made to have all the interest that might attach to an idealization named "The Young Newton," or "The Young Scott"; and, no matter whose boy it may be, he will seem interesting to every one. What makes any portrait the opposite, is less the fact that the person portrayed is uninteresting, than the fact that the artist has not had enough penetration to discover what the traits are that are interesting, uniformly and universally; or the ingenuity to extract them from their lurking-places and reveal and emphasize them.

Now let us turn to products that have nothing to do

with portraiture, and first to *genre* paintings, *i. e.*, paintings of ordinary domestic life. It is with reference to these, mainly, that we hear the adverse criticism, in case they indicate an endeavor to suggest a story, that they are "literary." The inappropriateness of the term, as frequently used, was pointed out on page 252, as well as the fact that suggesting a story does not involve a violation of the principle of Lessing,—to the effect that a painting should not treat of subjects necessitating a portrayal of events taking place at different periods of time. A story may be most effectively indicated, without any attempt to picture what cannot be supposibly seen at a single moment. Notice, for instance, Caravaggio's "Card Players" from the Dresden Gallery, Fig. 160, page 271. Here we see cards and money on a table. Seated at one side of this is a man with a dishonest face. On the other side of it, playing with him, is another man with an innocent face, evidently just the one to be made a dupe. Behind this last man, looking over his shoulder, stands a third, muffling his breath to prevent his presence from being detected, and holding up two fingers to let the first player know what cards are being played by the second. It would be impossible by any verbal explanation to increase the significance of the story thus indicated by the mere appearance of the figures. Notice, again, H. Stacy Marks' "Author and Critics" (Fig. 29, page 63). The postures and faces in this indicate at once, and better than words could, precisely what the whole means,—the author's self-satisfied enthusiasm, as well as the humiliation that may await him if by-and-by, when he comes to a pause, his hearers begin to have their say. Notice, too, Fig. 161, page 273, a picture which was in the Chicago Columbian Exhibition and is used here by kind permission of its owner, Mr. Charles T.

Yerkes. No man can affirm that the painter of the picture, Van Beers, disregards the requirements of execution. But, for all that, one cannot look at it long, without having his attention drawn to its significance, a significance, too, that, at once suggests its source in the artist's own inventive brain. A fashionable woman of the world has left her carriage in charge of her coachman and

FIG. 160.—CARD PLAYERS. CARAVAGGIO.
See pages 169, 172, 270.

footman and has seated herself in the park on a bench large enough for two. She is apparently waiting for something, probably for some one. Who is it? Of whom is she thinking? What is the ideal enthroned over her reverie? Just above her is a statue of a man without a head, but holding, where his mouth should be, a

flute. Why so? Think a moment. Is he not just what such a woman would want?—such a man without a head who nevertheless is ready to pipe for her? Where is the representation of time in this picture? Yet it outlines a story as clearly and completely as one of Heine's lyrics.

What was said on page 248, of Raphael's "School of Athens" (Fig. 156, page 249), as also of Kaulbach's "Reformation," and, on page 265 of the latter's "Destruction of Jerusalem," and of Guido's "Aurora" (Fig. 34, page 71), will illustrate sufficiently for our purposes in what way *mythologic*, *symbolic*, or *allegoric* paintings, while picturing appearances not conceivably perceptible, either at any one time, or at all, except in imagination, may, nevertheless, be so composed as, without the aid of a verbal explanation to awaken sufficient æsthetic interest. How they may do this may be well illustrated in a painting which should be classed with the ones just mentioned, because it attempts to make visible what in reality is not so. This painting is "The Dream" by Detaille, Fig. 162 page 275. The representation at once interprets itself. It does so, moreover, in the way which has already many times been said to be characteristic of art of the highest rank, namely, by calling attention not merely to significance in general, but to the particular significance added to the scene by the artist who painted it. Looking at the picture, we recognize that, in a distinctive sense, he has used the actual appearances of nature for the purpose of manifesting thoughts and emotions originated in his own mind. Partaking of the same general characteristics, though with features allying it to historical painting, is the "Dream of Jacob," by Bol, which may be seen in the Dresden Gallery. In this, the light descending in a broad ray from heaven falls upon

FIG. 161.—A SUMMER EVENING. VAN BEERS.

See pages 270, 271.

the ear of Jacob, whose hood, at the same time, is pulled away from it by an attendant cherub. The patriarch, though slumbering, has an expression indicative of much interest, and an angel standing over him seems to be imparting to him a blessing.

Under the head of *historical* paintings are usually ranked those in which main emphasis is given to the depicting of events rather than of the actors in these, though often the depicting of the one necessitates that of the other, and, often too, an employment of real or ideal protraiture. As will be observed, the line of demarkation between historical paintings and those that are mythological, symbolical, or allegorical is not always clearly definable. So far as concerns details, there is little difference between the way in which characters would be related in a painting bordering as closely upon the symbolical as Kaulbach's "Destruction of Jerusalem" and in a strictly historical painting of, say, "The Burning of Moscow." Historical paintings are those in connection with which dependence upon a verbal explanation is considered to be most excusible. How can we understand them, is asked, unless we understand the historical facts which they depict? Let us try to answer this question. Observe Gérôme's "Pollice Verso," Fig. 8, page 31. In this, without knowing anything about the gladiatorial exhibitions of ancient Rome, any one can perceive, at a glance, that there has been a public contest; that the contestant, who has been thrown to the ground, is in danger of losing his life; that he is holding up his hand with a sign which we recognize to be an appeal to the people to have him saved; and we know, too, that the majority of the spectators do not wish to have him saved, the ferocity of their countenances interpreting the meaning of the sign

FIG. 162.—THE DREAM. DETAILLE.

See page 272.

which they make with their hands, still more than does the fact that this sign is the opposite of the one made by the fallen victim. Or observe, again, Rubens' "Descent from the Cross," Fig. 163, page 277. Though we knew nothing of the story of the crucifixion, we should be aware that those in the foreground were taking down from a cross, on which he had been put to death, the form of one whom they all loved and revered. An analogous fact can be affirmed of Paul Veronese's "Adoration of the Magi," Fig. 35, page 72. Though we were not acquainted with the story of the Holy Child, we should perceive, without asking any questions, that, for some reason, he was the centre of interest for both man and beast.

Nicolas Poussin's "Woman Taken in Adultery" (Fig. 80, page 139) needs somewhat more explanation; and Raphael's "Sacrifice at Lystra" (Fig. 164, page 279), though its interest is by no means independent of explanations, is worth examining in connection with the following description by Opie in the second of his "Lectures upon Design." According to this cartoon, he says, the inhabitants of Lystra were "about to offer divine honors to Paul and Barnabas, and it was necessary that the cause of this extraordinary enthusiasm—the restoring the limb of a cripple—should be explained, which to any powers less than those under consideration would perhaps have been insurmountable, for this reason that painting, having only the choice of a single moment of time, if we take the instant before the performance of the miracle how can we show that it ever took place, if we adopt the instant after, how shall it appear that the man had ever been a cripple? Raphael has chosen the latter; and by throwing his now useless crutches on the ground, giving him the uncertain and swaggering attitude of a man ac-

277 FIG. 163.—THE DESCENT FROM THE CROSS. RUBENS.

See pages 202, 276, 287.

customed to support, and still in some degree doubtful of his newly acquired power, and by the uncommon eagerness with which he makes his address to his benefactors, points out both his gratitude and the occasion of it; and, still further, to do away with any remnant of ambiguity, he introduces a man of respectable appearance, who, lifting up a corner of the patient's drapery, surveys with unfeigned astonishment the newly and perfectly formed limb, in which he is also joined by others of the bystanders. Such a chain of circumstances, as Webb justly observes, equal to a narration in clearness, and infinitely superior in force, would have done honor to the inventor in the happiest era of painting in Greece."

279

FIG. 164.—THE SACRIFICE AT LYSTRA. RAPHAEL.

See pages 158, 276, 287.

CHAPTER XV.

FORMS OF SCULPTURE INTERPRETIVE OF THEIR OWN SIGNIFICANCE: THE FUNCTION OF EXPLANATIONS.

Differences between the Subjects of Painting and Sculpture—Portraiture in Sculpture—Poetic Description of the Dying Gladiator—The Laocoön—Symbolic, Allegoric, Religious, Mythologic, and Historic Sculpture—Verbal Explanations as an Aid to Artistic Effect—Have the Same Relation to Painting and Sculpture as to Music—The Interest and Attractiveness of Things Seen is Increased by our Knowledge with Reference to them—The Same Principle Applies to Things Depicted in Art.

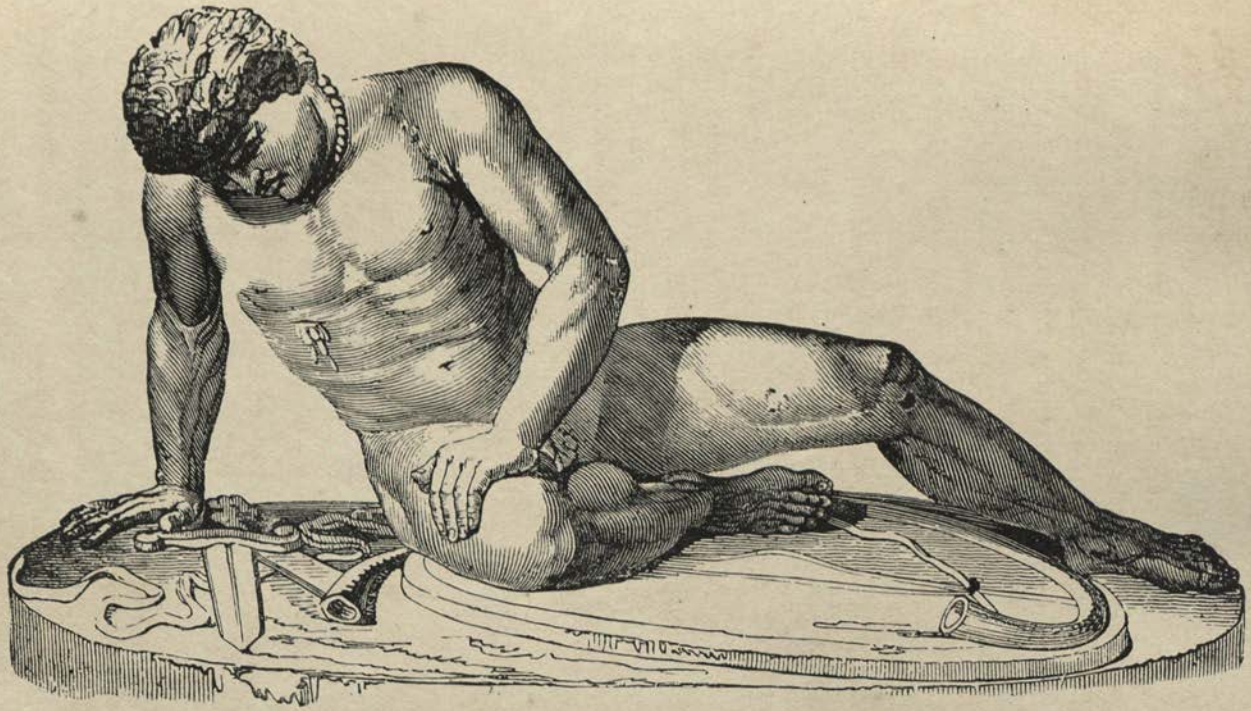
ALMOST everything said in the preceding chapter with reference to painting applies also to sculpture. But there are certain differences between the two arts, which make necessary a few words with reference to the representation of thought and feeling in the latter. Sculpture seldom attains high rank except when it reproduces the human form. Nor, even when it does this, are any effects used other than those possible to shape, the employment of imitative color being, at present, universally prohibited. For this reason, as Flaxman says in his "Lectures upon Sculpture," "The gray solemn tint of stone, the beautifully semi-transparent purity of marble, the golden splendor or corroding dark green of bronze," should cause the sculptor "to reject as incongruous all subjects the characters of which have not some dignity and elevation. The awful simplicity of those forms whose eyes have neither color nor brilliancy, and whose limbs

have not the glow of circulation, strikes the first view of the beholder as of beings of a different order from himself. Angels, spiritual ministers, embodied virtues, departed worthies, the patriot, or general benefactor shining in the splendor of his deeds, or gloomy and consuming memorials of the great in former ages,—such subjects distinguish temples, churches, palaces, courts of justice, and the open squares of cities. At the same time that they symbolize their several purposes, they may be comprehended in three classes,—the sublime, heroic, and tender." Among the sublime, he would probably include those classed as belonging to the "grand" style of the Greeks,—as in Figs. 19, page 47, 28, page 62, 37, page 76, and 148, page 223; among the heroic, he would probably include such statues as are in Figs. 1, page 20, 21, page 49; and among the tender such as are in Figs. 20, page 48, 38, page 77, and 149, page 224.

Aside from being confined, as a rule, to the more dignified and elevated types of the human form, the subjects of sculpture do not differ essentially from those of painting. First of all, as in the latter art, there is the sculpture of *portraiture*. Attention has been directed already, on page 266, to the statue of Nathan Hale (Fig. 159, page 267). Notice also the portrait statue of Titus (Fig. 165, page 282). Could any one, looking at it, doubt the character or the station of the man depicted? We have noticed, also, on page 142, the significance indicated in the ideal statue in Fig. 38, page 77, as well as on page 158, that indicated in the statue in Fig. 95, page 157. Indeed, to say nothing of the whole discussion in chapters VII. to IX. inclusive, ample treatment of this phase of representation in sculpture will be found in almost every part of this book. Notice the pages referred to under Figs. 19, page 47; 20, page 48;

37, page 76; 83, page 144; 149, page 224; and 148, page 223. An appeal to human sympathy has often been pointed out as characterizing the statue in the Capitol at Rome, called "The Dying Gladiator," though the best authority now considers it to be a "Dying Galatian," or "Gaul," the work of a superior school of art which flourished between 150 and 200 B.C. at Pergamum, a Greek city of Asia Minor, which, about this time, was successful in wars against the Galatians. Of this statue, Jarvis, in his "Art Idea," says: "It is an incarnation of the spirit of the universal brotherhood of men in their common heritage of suffering and death. A man dying by blood-drops from a stab. A simple and common subject; yet how beautiful and suggestive the treatment! . . . Criticism is absorbed in sympathy, and the fear or pain of death in the spirit's retrospection of life and inquiring gaze into futurity. Behold a fellow being prematurely sent by a violent death to the mysterious confines of eternity, and about to solve the com-

FIG. 165.—STATUE OF TITUS, IN THE LOUVRE.
See page 281.



283

FIG. 166.—THE DYING GLADIATOR, CALLED ALSO A DYING GALATIAN OR GAUL.

See pages 282, 283.

mon problem of life, whose evils have been to him so prolific a heritage. God aid him!"

It may be interesting, also, to compare with the statue the thoughts and emotions suggested, by the supposition that it was a dying gladiator, to the poet Byron:

I see before me the Gladiator lie;
He leans upon his hand—his manly brow
Consents to death but conquers agony,
And his drooped head sinks gradually low—
And through his side, the last drops ebbing slow
From the red gash, fall heavy, one by one,
Like the first of a thunder-shower; and now
The arena swims around him—he is gone,
Ere ceased the inhuman shout which hailed the wretch who won.

He heard it; but he heeded not—his eyes
Were with his heart, and that was far away.
He recked not of the life he lost, nor prize,
But where his rude hut by the Danube lay,
There were his young barbarians all at play,
There was their Dacian mother—he their sire
Butchered to make a Roman holiday.

—*Childe Harold.*

Could anything be more different than the representation of stillness in the statue and of movement—the shifting of thought from one thing to another—in the poem?

On page 223 it was said that many of the single statues of the Greeks, which we now possess, were originally members of groups. Some of these groups still exist entire. One of the most famous of them is the "Laocoön" (Fig. 21, page 49), the statue which suggested to the German critic Lessing the famous essay of the same

name. This "Laocoön," according to the story, was a priest, whose sons were punished with him for a sin which he alone had committed. The writer quoted on page 282, embodying several of the salient characteristics suggested by Lessing, says of this statue: "There is in the father's silent appeal to heaven for his sons' escape from an inexorable fate, and the pitiful look of the children directed to him whose sins are thus visited upon them, a moral beauty which overpowers the sense of physical agony. We perceive the awful fate impending, and are spared the absolute rack of flesh and blood. This the artist would not give. He does not permit Laocoön to cry aloud, though one can anticipate his convulsive sighs. Hence our feelings are moved to pity and admiration by his endurance, without being disturbed by vehement action, or the sense of the beautiful and grand being marred by the writhings of bodily anguish. As a whole, the conception is simple and lofty . . . we feel that a great soul is expiring in awful torment, and teaching the world a great lesson, particularly if we view the group in its symbolical sense of 'sin' or the *throttler*, which Max Müller says is the original meaning, or root of its name. Spirit predominates. Idea and object are identical, and true art is attained . . . Much of the character of this group depends upon that subtle principle of repose, which distinguishes the best antique art from most of modern work. Although violent and convulsive action is suggested by the nature of the scene, the artist has so skilfully chosen the moment of execution, that we feel, above all else, its deep quiet . . . the victims see their doom and instinctively prepare to resist it, even though the utter inutility of resistance is manifest; but the artist leaves us, in their joint struggle, a moral suggestion of

hope, the angel sister of sin, to lighten the otherwise too painful impression upon the spectator; and the consciousness of all this is given by the skilful seizing of the exact instant in which the stillness of instinctive preparation precedes the last fearful effort of tortured nature to escape its doom."

Again, there are statues, like paintings, which are designed to be *symbolical*, *allegorical*, or *mythological*. Of these, the "Resurrection," Fig. 82, page 143, furnishes an example. So, including more than one form, does Fig. 22, page 50, a part of the front of the tomb of Maria Christina, a daughter of Maria Theresa, and wife of Duke Albert of Saxe-Teschen. This tomb, which is in the church of the Augustines at Vienna, is one of Canova's masterpieces. In the part of it represented in Fig. 22, a lion and an angel are weeping and keeping guard on one side of the entrance of the vault, the lion being the symbol of the royal house, and the angel the symbol of the bereaved husband; or, as perhaps might better be said, the lion as the king of beasts symbolizing the physical, and the angel as the messenger of heaven the spiritual; and the two together the sense of loss as to both physical presence and spiritual communion. Once more, there is *historical* sculpture. Of course, the general character of this cannot differ greatly from that of historical painting. It is evident that a composition like that in Fig. 23, page 51, or Fig. 155, page 247, would be subject to exactly the same laws as if it were a painting.

Thus far, an answer has been given to only the first question asked on page 254, to wit, whether it is possible for all appearances represented in painting and sculpture to be made significant in themselves, *i. e.*, aside from the aid afforded by verbal explanations. But what has been

said has suggested also the appropriate answer to the second question, to wit, whether all explanations depending upon acquaintance with the literature of a subject, are to be denied legitimate influence in securing the æsthetic effect. The answer is, that they are not. For this the following reason could be given, even if there were no other. An art-product appeals to a man as distinguished from an animal. If so, the appeal must be made to that which distinguishes him from the animal. This, of course, is his intellect, together with the character and amount of intelligence ascribable to it. But if this be so, an increase of intelligence must increase his capacity for recognizing the appeal of art. As applied to a particular art-product, an increase of his intelligence with reference to either its form or subject, must increase his capacity for enjoying it. Nor need it make any essential difference whether this intelligence be the result of his general information, or of special information with reference to the object immediately before him, such as he can derive from a guide book. A man with a knowledge of history, however derived, will certainly take more interest in a painting like Raphael's "School of Athens" (Fig. 156, page 249), or Gérôme's "Pollice Verso" (Fig. 8, page 31), than will one ignorant of history; and a student of the Bible will take more interest than will one ignorant of it in a painting like "The Death of Ananias," Fig. 39, page 79; "The Woman taken in Adultery," Fig. 80, page 139; "Judas, Peter, and John," Fig. 92, page 150; "The Descent from the Cross," Fig. 163, page 277; or "The Sacrifice at Lystra," Fig. 164, page 279.

The same may be said of explanations accompanying a painting or a statue as was said at the end of Chapter VII. of "Music as a Representative Art" of explanations

printed on a musical programme. It was there pointed out that, according to the theory advanced in Chapters X. to XV. of "Art in Theory," especially on page 160, the degree of beauty is often increased in the degree in which the number of effects entering into its generally complex nature is increased. This is true even though some of these effects, as in the case of forms conjured before the imagination by a verbal description, may come from a source which, considered in itself, is not æsthetic. It must not be overlooked, however, that all beauty whatever is a characteristic of form; and that intellectual effects, like these explanations, to have an æsthetic influence, must always be presented to apprehension in connection with an external form with which they can be clearly associated. For this reason, though they may add to the æsthetic interest, where it already exists, they cannot, of themselves, make up for a lack of it. To a work of art an explanation is much what canes are to walking. Well used, they may increase the gracefulness of impression conveyed by a man's gait. But this cannot be graceful at all, unless he is able to walk without them. So a picture cannot be all that a work of art should be, unless, without one's knowing what the explanation is designed to impart, the drawing and coloring can, in some degree, at least, attract and satisfy æsthetic interest. An explanation intended to be used as a crutch instead of a cane, cannot be too strongly condemned. But there is no greater folly than to deny that the knowledge that we may have, or that we may get, with reference to the subject of a picture, enlarging, as this must do, its associations and suggestions, can add immensely to our distinctively æsthetic enjoyment. In what consists the worth of art except in the effects that it arouses in the emotions

and, through them, conjures in the imagination? But by what is the reach of imagination determined, except by the amount of information present in the mind with reference to that by which the emotions have been influenced?

When we see a party of children, we may be interested in them on account of the symmetrical outlines of their forms, or of the glow of health in their faces. But there are other considerations that may increase our interest. One is the fact that we see them doing something which their actions indicate. Another is that they are expressing something which their countenances indicate; and, still another, that they are children whom we know and love. Nor is it true that any of these latter considerations, which increase our interest, necessarily interfere with the degree of interest excited in us by their grace or beauty of form.

Why should one deny that similar principles apply to the figures seen in pictures? Yet practically every art-critic denies this who fails to recognize that which may be added to them by increasing their representation of significance. Why will a man, sensible in other regards, admire so blindly painters who, however great, have not the breadth to include among their merits this form of excellence? Why will he follow them when leading him in an opposite direction, even to the extent of turning his back completely upon qualities of the importance of which the slightest thought ought to convince him? Or how can he complain if another, merely imitating in principle his own example, turn in the opposite direction even to the extent of altogether ignoring technique? Art involves the representation not merely of significance nor merely of form; and those who wish to further its interests

cannot do so by directing the energies of the artist exclusively to either. The captain of a yawl tossed by ocean waves might as well urge every one on board of it to rush to one side of it or to the other, and expect to reach his landing without capsizing.

CHAPTER XVI.

REPRESENTATION OF MATERIAL APPEARANCES IN PAINTING AND SCULPTURE.

Form Comes to be Developed for its own Sake—To Appreciate Art, we should Know the Technical Aims of the Artist—Books on the Subject—Elements of Correct Technique—Lineal Representation of Light and Shade—Of Shape and Texture—Of Distance and Perspective—"Classic" and "Romantic" Lines—Distinctness and Indistinctness of Line—Laws of Perspective—Lineal Representation of Life and Movement—Reason for Apparent Lack of Accuracy—Same Principles Apply to Sculpture—Elements of Correct Coloring—Ignorance of Early Colorists—Value—Origin of the Term—Color—Representation of Light and Shade—Of Shape and Texture—Of Distance or Aërial Perspective—Of Life and Movement—Conclusion.

WHENEVER one uses a form either of sound or of sight in order through it to express thought or feeling, a natural tendency of mind causes him after a little to become interested in the form and to develop its possibilities for its own sake. As shown in Chapter V. of "Art in Theory," it is this tendency that leads to all art; and the fact furnishes a degree of justification, though not to the extent that is sometimes urged, for the maxim that enjoins interest in "art for art's sake," even if by art, in this sense, be meant that merely which has to do with the representation or reproduction of form as form.

The truth of this statement is especially easy to recognize as applied to painting and sculpture, partly because

in them it is so evidently essential to have the forms exactly imitative of those of nature, and partly because, before the imitation necessitated can be successful, it so evidently requires careful and scientific study. These considerations do not justify a lack of interest in the significance which a form may be made to express; but they do necessitate, on the part of all who wish to understand the subject, some knowledge, if not of a painter's technique, at least of his technical aims. Only in the degree in which men have this knowledge, can they estimate a painting from an artist's point of view, or have a right to an opinion concerning its workmanship. Fortunately, this very apparent fact has been fully recognized. Not to speak of foreign works on the subject, like Charles Blanc's "Grammar of Painting and Engraving," able books have been produced in our own country, exactly fitted to supply the information needed particularly by ourselves. Chief among them are Dr. John C. Van Dyke's "How to Judge of a Picture" and "Art for Art's Sake." It is difficult to conceive how any one could make a more thorough and discriminating study of painting from the view-point of the leading modern artists—though, of course, some of them would differ from him—than has been done by this author; and certainly no one has ever succeeded in giving so clear and on the whole so absolutely trustworthy an expression to the results of such study. Mr. George W. Sheldon, too, has thrown an immense amount of light on the same subject in his exceedingly interesting and important series of what might be termed "edited interviews" with painters, published in his volumes entitled "American Painters," "Hours with Art and Artists," and "Recent Ideals in American Art." Indeed, to attempt here anything intended in any sense to be a substitute for

these works would be superfluous. But as our general plan renders some reference to the subject essential, it is hoped that, by way of arrangement or comment, if of nothing else, even those familiar with the general principles involved may not find this chapter wholly unsuggestive.

FIG. 167.—TREATMENT OF DESIGN IN RELIEF. W. CRANE.
See pages 44, 46, 294, 307.

As has been noticed, there are many characteristics of visible form. The more important of these, by grouping together in four cases two factors that are clearly allied, may be considered under the heads of *light and shade*, *shape and texture*, *distance and perspective*, and *life and movement*. These four doubled requirements of painting, and, in some cases, of sculpture,

we shall consider as influencing first the use of lines, as in drawing or carving; and, second, the use of color.

With reference to *light and shade* as influencing the use of lines, it is chiefly important to notice that, in very bright light objects are more distinct than in dim light, first, because we see them more clearly; and second, because we see them in contrast to shadows which are immediately beside or behind them; and in the brightest light, as in brilliant sunshine, the shadows are always comparatively the darkest. Notice the two illustrations at the right of Fig. 168, page 297. Of course the representation, whether by pencil or brush, of outlines supposed to be illuminated by different degrees of light, must correspond to these facts.

Closely connected with the representation of light and shade as produced by drawing, is that of *shape and texture.* It is chiefly through the play upon surfaces of the former two that we are able to tell whether an object as a whole is flat or round, or whether its surface is rough or smooth. Notice these facts as exemplified in the drawings of objects in Fig. 167, page 293; also in Fig. 16, page 41.

The third effects to be represented are *distance and perspective.* To begin with, remote objects are always in light that is comparatively dim; and, for this reason alone, it follows from what has been said already that their outlines are indistinct (see Fig. 168, page 297). But it took the world many years to recognize this. Some artists apparently have not recognized it yet. There is still a controversy, the results of which can be seen in every large gallery of modern paintings between the advocates of what is termed the "classic" or "academic" line, and the "romantic," "picturesque," or "naturalistic." The former is a firm, clear line such as appears in

the paintings of Gérôme (Fig. 8, page 31), Bougereau, and Cabanel. The other is a misty, indistinct line, such as appears in certain works of Millet and Corot. Notice especially the left leg of the man in Fig. 169, page 299. The classic line is necessarily the primitive one, the first impulse of any draftsman being to separate an object distinctly from other objects. As we should expect, therefore, this kind of line characterizes most of the pictures that have come to us from the ancients, as well as the rude sketches of the school-boys of our own time. But in the drawings of the great masters, say Titian, Correggio, and Rembrandt, there is a constant tendency in the other direction. Only in modern times, however, have the two tendencies developed into antagonistic schools,—the extreme advocates of the one, though they are not all called Pre-Raphaelites, showing a tendency, nevertheless, to claim, as the modern painters who founded this school were accused of doing (see Fig. 151, page 229), that in a painting every leaf on a tree, every spear in a grass-plot, every hair on a head, should be distinctly and separately outlined; and the advocates of the other school showing a tendency to claim that in no case should any of these be so outlined, partly because they are not so perceived in nature, and partly because, even if so perceived, they should not be so delineated in art, the object of which is to represent not specific, but general effects (see Fig. 152, page 231; also 169, page 299). It seems as if, in this case, as usual, the extremists on both sides somewhat exaggerate the partial truth that they are trying to emphasize. Objects in very bright light and near at hand can be, and, if one would represent nature faithfully, should be delineated with well defined outlines. On the contrary, objects that are in

dim light, as in the twilight landscapes of Corot, or objects which are remote from the observer, can be and should be delineated with indistinct outlines. Notice these conditions as indicated in Fig. 168, page 297, taken from "The Principles and Methods of Art-Education," of Principal John Ward Stimson. It is a fact that, a few hundred feet away, we recognize men, horses, and sheep less by distinguishing accurately their outlines than by observing their relative shapes, sizes, and colors; and that, at the same distance, the leaves of trees blend in a general mass of foliage. But this is no reason why the same objects, if represented as near at hand, or, possibly, as seen through an eye-glass, should not be delineated with outlines of an opposite character.

To neglect to give them these is to base art-work upon theory rather than observation, as well as to suggest that the advocate of the "classic" line speaks the truth when he asserts that his opponents decry distinctness chiefly because they do not care to give distinct emphasis to the fact that they themselves are unskilful draftsmen. Certainly, no one can doubt that an age of the paintings of impressionists, in which mere patches of color would be considered all that was requisite in order to enable the imagination to construct its own contours for objects, would be an age in which drawing would become a lost art. Here, as elsewhere, the truth seems to lie between the extremes. And does not the salvation of art as of life depend upon its fidelity to truth?

But there is another effect which distance has upon the line. This appears in connection with what are called "the laws of perspective." If we look down a long street, the roadway or sidewalks of which are of uniform width, and the buildings along which are of uniform

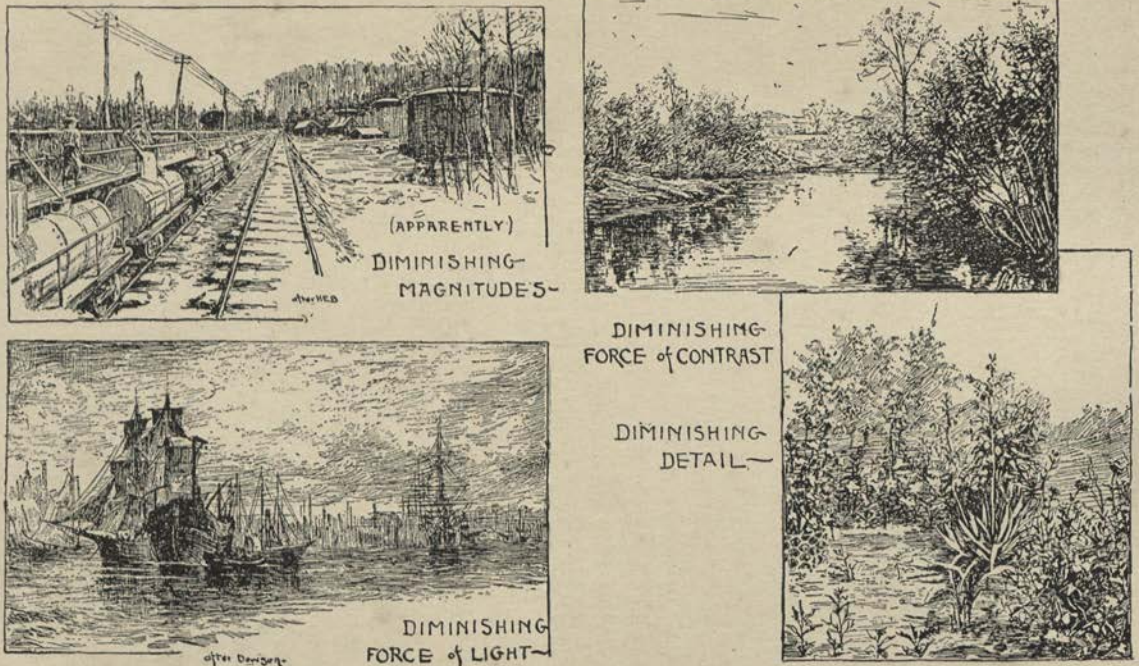


FIG. 168.—EFFECTS OF DISTANCE ON MAGNITUDE, LIGHT, CONTRAST AND DETAIL. J. W. STIMSON.

See pages 28, 91, 206, 294, 296, 298, 304, 306, 308.

height, we find all the lines of sidewalks, curbstones, basements, and roofs gradually converging in the extreme distance. In case two parallel lines are as near together as the two tracks of a railway, they may seem actually to meet in the distance. Notice the upper illustration at the left of Fig. 168, page 297. As the appearance indicated is universal in nature, of course art, in representing nature, must represent it also. Yet for centuries the proper method of doing this was not understood. Now it is known that if, from an imaginary vanishing point on which the eye, in gazing toward the back of a picture, is supposed to be fixed, radiating lines be drawn to the top and bottom and sides of a form represented in the foreground, these lines between the form and the vanishing point will determine the top and bottom and sides of other figures, which in the degree in which every dimension in them is made smaller than the form in the foreground, will appear to be, not less in actual size, but at a greater distance from the spectator. Notice the left upper illustration in Fig. 168, page 297. These laws of perspective are now so well known that their more simple effects are easy to produce. But some of them are exceedingly difficult. Take cases of foreshortening, for instance, like the representations painted by Michael Angelo on the ceiling of the Sistine Chapel of figures in all possible positions, standing, sitting, lying, and ascending in clouds,—could any one, unless very skilful as a draftsman, produce with success such effects?

But from this linear representation of light and distance, let us now pass on to that of *life and movement.* The spokes of a wheel in a wagon, when standing still, have one appearance. What is their appearance when the wagon is under way? What is the appearance of a torch

FIG. 169.—LEAVING FOR WORK. J. F. MILLET.

See pages 295, 300.

when waved through the air, or of the legs of a man or a horse when racing? What is the appearance of the leaves of trees or the waves of lakes when swayed by a tempest? An attempt to answer these questions will convince us of the impossibility of using the classic line in all cases, even when the object is in clear light and near at hand. Flying spokes of wheels, whirling torches, moving legs, tossing waves and foliage (see Fig. 152, page 231), are seldom seen with distinct outlines. To have these, an object should remain a certain length of time in one place. If it do not, all the outlines are blurred and run into one another, or into the atmosphere. For this reason, a rolling wheel is represented not as a compound of spokes, but as a sparkling disk, a waving torch not as a point of light, but as a curve, and a moving form not as a stationary one, but disproportionately extended. Notice the left leg of the man in Fig. 169, page 299. It is evidently lengthened as it is, in order to represent two different positions which the eye is obliged to take in at one glance. Whether the attempted effect is a success in this particular case may be doubted. But effects analogous to it are often greatly praised. "Let us look at these Arab horsemen of Fromentin," says Van Dyke in his "How to Judge of a Picture." "The horse of this falcon flier going at full speed has been criticised, because, forsooth, the body is too long and the hindquarters are stretched out behind instead of being compactly knit together. . . . But stand back and see the effect of the whole. Is not the motion, the life, the fire, the dash superb? Could anything give us a better impression of the swiftness of flight."

The desire to convey this impression of movement with its associated ideas of life and force largely accounts for

the apparent lack of accuracy, and sometimes unmistakable exaggeration in the works of such an artist as Michael Angelo (see Fig. 170, page 301), as well as for this and also for what seems to be a lack of distinctness in the paint-

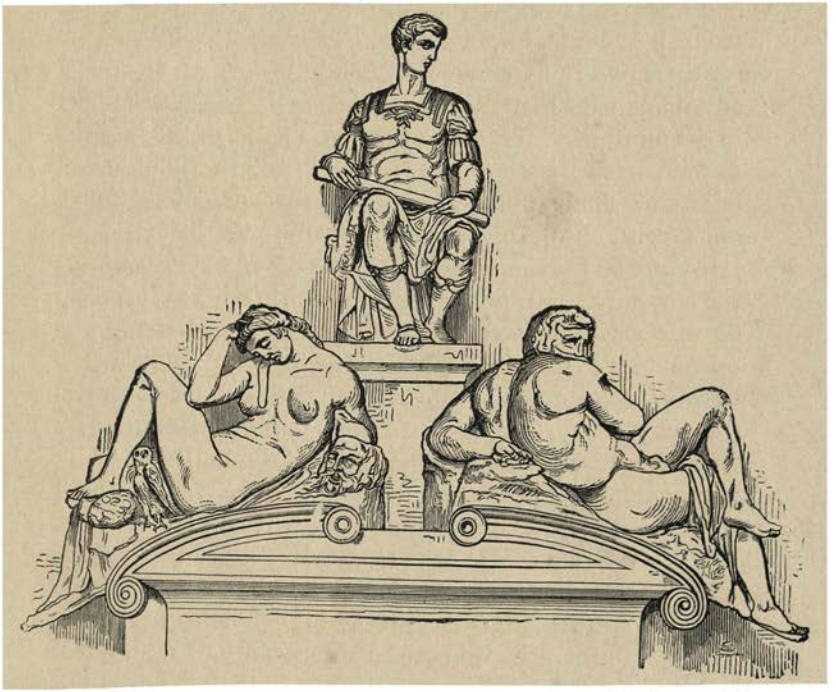


FIG. 170.—TOMB OF GIULIANO DE' MEDICI WITH FIGURES OF DAY AND NIGHT. ANGELO.
See pages 50, 301, 302.

ings of Blake, Millet, Diaz, Corot, and Daubigny. As Van Dyke says: "It is the attempt of every true artist to paint not reality, but the appearance of reality."

All that has been said of drawing in painting applies to carving in sculpture. The method of finishing surfaces

in marble or bronze, whether represented in full or in partial relief, is not determined solely by the outlines of the form imitated, but by the appearance that it presents, as affected by the play of light and shade upon its surfaces and the suggestions of shape, texture, perspective, life, or movement necessarily connected with one rather than with another mode of treatment. It would be difficult to find any human forms with muscles actually resembling those in the figures in Michael Angelo's "Tombs of the Medici," at Florence (Fig. 170, page 301). Yet the influence of light and shade upon the carving, when viewed from a distance, makes all seem wonderfully real. The perspectives represented in Fig. 23, page 51, or in Fig. 155, page 247, suggest shape and distance as faithfully as if depicted on canvas; and the slightly elongated or contracted proportions in Barye's bronzes of men and animals give effects of life and movement equal to any attempted in painting.

The requirements of the effects just mentioned, which make difficult the representation of objects by means of drawing, have a corresponding influence upon the representation of the colors of nature. For centuries, painters have been trying to imitate these. But how seldom have they been in every regard successful? The earlier artists, even in comparatively modern times, did not seem to see exactly what these colors were. The blue of the sky and the bloom of the cheek were painted in hues altogether too deep and full. Sparkling effects like those glanced from water were scarcely attempted. Foliage on distant mountains was represented by an impossible green; and as for that near at hand, it seems to have remained for the discoveries of physics to suggest to painters how frequently it can be helped by slight introductions among its shadows of purple or red.

Nor did the earlier painters seem to recognize the varieties in these colors,—the infinite numbers of tints and shades found in them when exposed to more or less of sunlight. They could never represent aright the folds of drapery, the leaves of trees, nor even the plain ceiling of a room where it was necessary to reproduce effects of illumination or reflection. Much less could they represent the larger play of light and shade, air luminous with sunshine or mellow in the moonlight. What hues could picture the effects of firelight or of shadows cast by certain colors or received on certain colors? Only many experiments could settle these questions; only science could settle them beyond dispute. The manner in which it has done this will be examined in another volume of this series. But a few paragraphs with reference to the subject will not be out of place here.

In order to express the effect upon colors of most of the influences that we are to consider, painters use the word *value*. The same color, for instance, is said to have a different value in sunshine, in shadow, on the surface of a square, and of a sphere, in a texture of silk and of velvet, when near us or when seen distinctly in a clear atmosphere, when remote from us or when seen indistinctly in a dim atmosphere, or when considered in its relations to movement. The artist who preserves the proper values of color is the one who, in all these cases, represents it as in the circumstances it appears in nature.

The use of the term undoubtedly grew out of the application to colors of other terms like rich, full, deep, thin, weak. It would be natural to say that anything which could be more rich or full than another could differ from it in *value*. All such terms, however, when once used, come soon to have technical meanings. The meaning now attached to this term is indicative of the degree of light

that is in a color. In the foreground of a picture, where there is the most light rendering it distinct, the color is said to have more value than the same when in the background. The term is also applied to colorless drawings, but, in this case, a line that is in the foreground, where there is the most light rendering it distinct, is, unlike a color, darker rather than brighter. So we have the apparent anomaly of assigning the most value to bright colors, but to dark lines (see Fig. 168, page 297). A score or more of years ago the term was used to indicate differences between different hues; yellow, for instance, as containing more light, being said to have more value than green containing less light. At present, however, the word is mainly used to indicate relations between different tints or shades of the same hue, tint being a term indicative of what contains more light, and shade a term indicative of what contains less light than the hue itself does when it is what is termed full. As illustrating the very different effects produced upon the same color by very slight changes in degrees of light and shade, excellent examples are afforded in the Metropolitan Museum of New York. For instance, in the picture entitled "Gossip," by Carl Marr, dresses, a table-cloth, a window curtain, and many other articles placed side by side are all white. In another picture, entitled "A Spanish Lady," by Fortuny, the dress, laces, ribbons, and ornaments of jet are all black; and in still another, entitled "Monks in the Oratory," by F. M. Granet, the robes, seats, wainscoting, and other objects are all brown.

As was done in the case of drawing, let us consider here, first, the representation of *light and shade*. The very earliest paintings of which we know—the Egyptian—contained no shadows whatever. The early Italians

thought that they could depict the effects of light upon a fabric of any color by white, and of shade upon the same color by black. Of course, their method did not involve any study of what is now termed value. But with the development of the possibilities of pigments by Leonardo, Titian, Correggio, Rembrandt, and their respective followers, the necessity for this study became recognized. In modern times it has been still further emphasized by the employment of the term itself, and in the teaching of what is meant by it in the schools.

The effects of light and shade upon any scene in nature may be said to be general and particular. That which is general is produced upon a scene or an object in it, as a whole, by some illumining agent, like the sun, the moon, a fire, or a candle. That which is special is produced by the different positions relatively to one another of different parts of the whole. A tree or a man, for instance, if depicted in sunshine, would each cast a shadow, and each with its shadow would illustrate the effects of general light and shade. But besides this, every leaf or limb of the tree is illumined with a light peculiar to itself, and casts its shadow on some other leaf or limb; and every feature in the countenance and every fold in the clothing of a man is either in extreme brightness, like the tip of his chin or nose, or in shadow, like a dimple of his chin or one side of his nose. In some of these cases, as for instance, where sparkling effects are necessary, light can be properly indicated by white, and shade, as where surrounding colors are very dull, by black; in others, as where the light falls strongly on brilliant colors, the shadows must contain hues that complement these; but in many cases, especially where the light is not intense, it is mainly necessary to change the values of the same hues making them

brighter in more light and darker in less. To preserve the proper relations and proportions of coloring, in each case, is, of course, extremely difficult, and necessitates very careful observations of the conditions of nature. The main principle is that the brighter the illumining light, the greater are the contrasts both of shade and hue between the bright and dark parts and the more sharply defined are the lines of demarkation between them (see Fig. 168, page 297). Besides this, in any given scene, the influence of the light is such that, to be properly represented, the values need to be slightly and gradually changed at almost every point. The difference in a painting between the appearance of mere paint and the appearance of reality is largely due to these slight variations in values, producing, wherever are depicted thick foliage or folds of drapery, those subtle suggestions of the play of light and shade in which nature always abounds. Other facts that should be considered in connection with light and shade, need not detain us here. Some have reference to conveying, through methods of composition, an impression of unity. These are treated in "The Genesis of Art-Forms," under the various heads of Principality, Central-Point, Massing, and Gradation. Others have reference to color-harmony, and these, as well as the former, will be treated in a volume to be entitled "Proportion and Harmony of Line and Color in Painting, Sculpture, and Architecture."

As in the case of drawing, the representation of *shape and texture* is closely related to that of light through the use of color. Shape is indicated mainly in connection with general, and texture with special, light and shade. It is the narrow or broad lines or masses of intensely bright and sometimes white color which, together with darker colors on either side or surrounding them, enable us to

perceive that a surface on which they appear is intended to represent an edged or a rounded or circular shape, while similar characteristics, differently and more minutely distributed, enable us to recognize that the texture is intended to seem like that of silk, velvet, wool, wood, stone, soil, water, or clouds. We can recognize these facts, even from the corresponding effect as produced by the use of the pencil in Figs. 16, page 41, and 167, page 293. The necessity of representing shape in painting was recognized very early in the development of the art, but there were no great painters of texture before those of the Netherlands, like Dou, Hals, Denner, Terborch, and Jan Steen. In modern times there are many who excel in producing these effects, noticeably Meissonier, Willems, Breton, Fortuny, and Alma Tadema, as well as, in landscape, Rousseau and Troyon. In the paintings of all of these, silks, satins, velvets, rugs, leathers, furs, feathers, marbles, moss, sod, tree-trunks, rocks, water, are evidently treated as they are with a primary design, not in all cases equally successful, to have every detail represent exactly what they purport to be.

The use of values in the representation of *distance*, or *aërial perspective*, is perhaps more important than in the representation of texture. The atmosphere is filled with particles that cause it to act like a vail obscuring the colors in the distance by depriving them of a part of their light. This, for reasons to be explained in "Proportion and Harmony of Line and Color in Painting, etc.," produces two effects. It causes the colors as distances increase to become duller and, in the remote distance, to become changed in hue. In an atmosphere pervaded throughout by the same general degree of light, yellow, which contains the most light of any of the colors, passes

into darker yellow and orange; orange into red-orange and orange-brown; red into dark red and brown; yellow-green, like that in the near foliage in bright sunshine, into green, then into dark green, and in the extreme distance into blue and purple, or, in the absence of sunshine, into gray; near colors too of dark green and blue pass through purple into gray. The local shadows cast by a hill, tree, or leaves in the greater brightness near at hand are darker than the shadows at a distance (see Fig. 168, page 297). The general shadows cast by the clouds do not necessarily have this effect. Often in fact, by obscuring the sunlight near at hand and leaving it clear in the distance, in other words by changing the degrees of light in different parts of a landscape, they change the distribution of colors that have been mentioned. In an ocean view, for instance, light green is sometimes seen in the distance and deep blue near at hand. But as a rule the colors in aërial perspective will appear as has been stated. In regiments of soldiers marching toward us, all clad in scarlet, that color seems brightest in the front rank, slightly less bright in the second, and gradually decreases in brightness till in the remotest distance it may seem nearly brown. Even in the same room books of the same color seem to differ, if one be a foot farther from us than the other, provided always, of course, that they are illumined by the same degree of light. All these statements can be seen illustrated, by inspecting the works of artists like Rousseau, Daubigny, Millet, Troyon, or others of the Fontainebleau-Barbicon school, the oriental pictures of Decamps or Fromentin, or the landscapes or interiors of more modern painters like Inness or Chase of our own country, Israëls of Holland, or Lerolle of France. Those who have an opportunity to do so will be interested in noticing the

effects of distance and space as produced by the latter, in the "Organ Recital," which is in the Metropolitan Art Museum in New York.

Life and movement are also represented by the use of pigments. The surfaces of moving objects are all the while passing either into the shade or out of it, or farther from us or nearer us, as the case may be. This fact necessarily involves changing their colors and causing them to run or blur together. Not only so, but in the degree in which their surfaces are capable of reflecting the light, it produces those contrasts between sparkling and dark effects with which we are all familiar in the appearance of waves and revolving wheels, when glancing back the sunshine. Even in objects where there is little movement, as in ordinary sod and tree-trunks, there is an irregularity of surface and of substance that produces graded, striped, and checkered effects, all of them apparently so inseparably connected with life, that the reproduction of them by the use of pigments is essential to make a picture seem life-like. In fact, here as elsewhere, we find that the difference between the suggestion of the reality of nature and the suggestion of mere brush-work in a picture is owing mainly to the fact that in the former the true values of the colors have in all cases been preserved.

But enough has been said here for our present purpose. There are other considerations in connection with this subject that need to be understood even for the recognition of successful imitation, such as the influence of reflection or of shadows cast by or on certain colors in different degrees and kinds of light, and the way in which two colors having one effect in nature weaken or strengthen one another when brought together in the

closer proximity necessitated by a picture. But none of these facts could be treated satisfactorily without a more extended explanation of the scientific principles involved than would be appropriate in a place where we are considering color not as color but as a means of representation. For this reason, a discussion of them must be postponed to that volume of this series of essays entitled "Proportion and Harmony of Line and Color in Painting Sculpture, and Architecture."

CHAPTER XVII.

THE DEVELOPMENT OF REPRESENTATION IN ARCHITECTURE.

Modes of Expression in Architecture and Music as Contrasted with Painting, Sculpture, and Poetry—The Germs of Music and Architecture Antedate those of the Other Arts, but are Artistically Developed Later—Music Develops through Poetry, and Architecture is Hut-Building Made Picturesque and Statuesque—Early Attempts to Make Useful Buildings Ornamental—Examples—Influence of the Play-Impulse upon All Forms of Construction—Illustration of its Effects upon a House—These Effects Represent both Mental and Material Conditions—Facts Evincing this—Such Effects as Enhancing the Interest.

BEFORE concluding the task undertaken in this volume, the effects of appearances, which were studied in detail in Chapters II. to XI. inclusive, must be considered as combined together in the products of architecture. As an aid to this end, let us first recall what was said in Chapter II. of the differences between the modes of expression developed in this art and in painting and sculpture. In these latter, as also in poetry, the mode was said to be responsive or unsustained, a terminalogy explained by directing attention to the fact that their forms are occasioned by an endeavor to respond to outside interruption, or at least emergency; as is exemplified when a cat moves about and mews; or when a bird flits from branch to branch and chirps; or when a man, gazing from one to another of his surroundings, re-

fers frequently in language or action to what he hears or sees. If he do so by word, we have that which develops into poetry, if by deed, that which develops into painting or sculpture. But aside from this mode of expression, it was pointed out that there is another, which may be termed subjective or sustained. In accordance with this, the cat keeps quiet and purrs, the bird stays on one branch and sings, and the man works and hums to himself, developing a plan or melody from some single outside suggestion without consciousness of interruption; or, at least, of anything like constant interruption, in which other things are suggested. It was said that this subjective or sustained mood is at the basis of representation in architecture and music; also that because the mood is suggestive rather than responsive, there is less necessity in these arts than in painting, sculpture, and poetry for expressing thought and emotion in such ways as to communicate definite information to others; and because the method of expression is sustained, there is less consciousness of external surroundings, and therefore, less tendency to describe and imitate their appearances. The musician constructs an entire symphony from a single significant series of tones, and the architect constructs an entire building from a significant series of outlines. At the same time, there is, in both arts, an occasional return to nature for the purpose of incorporating, if not imitating, in the product some new expression of significance. But the fact that they are both developed from this sustained and subjective method of giving expression to a first suggestion, makes such a return to nature much less frequent in them than in the other arts.

One more point of similarity between music and architecture ought, perhaps, to be mentioned. It is this, that

while, as among very young children, for instance, the inarticulated tones that develop into music antedate the articulated words that develop into poetry, the artistic forms of music, as in melody and harmony, are developed much later than those of poetry. In the same way, too, while the building of huts that develops into architecture antedates the drawing, coloring, and carving that develop into painting and sculpture, the artistic forms of architecture, as in ornamental columns, pediments, and spires, are developed later than painting and sculpture of, at least, sufficient excellence to merit recognition. Of course, the human being is obliged at a very early stage in his history to provide means of shelter. But he is not influenced to construct that which he erects in such a way as to give expression to his thoughts and emotions, which is essential for an artistic motive, as early as he is influenced to draw pictures for the same purpose. A boy, or a boy-like savage, using a pencil or knife, will enjoy expressing his thoughts and emotions by way of imitation for its own sake, long before he will enjoy doing the same for the sake of ornamenting what would be just as useful without ornamentation. In the former case, his mind begins by being at play; in the latter, by being at work; and his first desire always is to be rid of work.

The truth seems to be that the tendency to produce inarticulate sounds, and to construct rude means of shelter, have to wait for their artistic development until after men, through the consciously intellectual use of words or pictures, drawn or carved, have acquired that distinctively intellectual sense which is called artistic. As shown in "Music as a Representative Art," music is an adaptation of the intonations of voice which necessarily accompany words, but with the words not necessarily present.

So architecture can be said to be an adaptation of the arrangements of appearances which necessarily accompany pictures or statues, but with the pictures or statues not necessarily present. That is to say, just as music is successful in the degree in which it fulfils the principles underlying the uses of words in poetry, though these words are absent, so architecture is successful in the degree in which it fulfils the principles underlying the use of appearances in paintings and statues, though these appearances are absent. An architect in our own times first makes a drawing of his building. The same man, before the days of pencils and paper, might not have made an external drawing. But he would have made one in imagination; and this would have indicated the influence upon his mind of a picturesque or statuesque conception. But how could he have had this, except as he had had experience of some previously existing picture or statue?

As already intimated, we cannot imagine a time when human beings did not use their hands in order to construct what would enhance their comfort and enjoyment. They would naturally do this almost as early as they would articulate sounds; and the most important of their labors of this kind would be directed toward providing means for protection and shelter. The earliest human dwellings are supposed to have been caves, or very rudely constructed huts. According to the views presented in "Art in Theory," so long as men expended no thought or emotion upon these beyond that needed in order to secure an end of utility there was no art of architecture. But it is impossible to conceive that the human mind would not begin very soon, in this department as in all others, to pay some attention to æsthetic ends. "So far

as we can at present discover," says Wyatt in his "Fine Art," "the earliest attempt at architectural effect was the decoration of the face of the cave which formed the dwelling of the individual (see Fig. 171, page 315). Openings, made for the access of light and ventilation with more or less rude cutting scarcely worthy of the name of architectural decoration, were executed with rude implements at a very early age. Masses of stone, left to support the superincumbent rock, as the natural cavern was enlarged, gave origin to those rude piers which, at first misshapen, subsequently squared, then reduced by the cutting off of the angles to an octagonal shape, and further shaped by additional cuttings to a polygonal section, ultimately assumed the form of the cylinder, slightly tapered" (see Fig. 172, page 317). Again he says: "At an extraordinarily early period in the history of mankind we meet with structures in which stone and other mineral substances simulate constructions in wood (see Figs. 171, page 315, and 172, page 317).

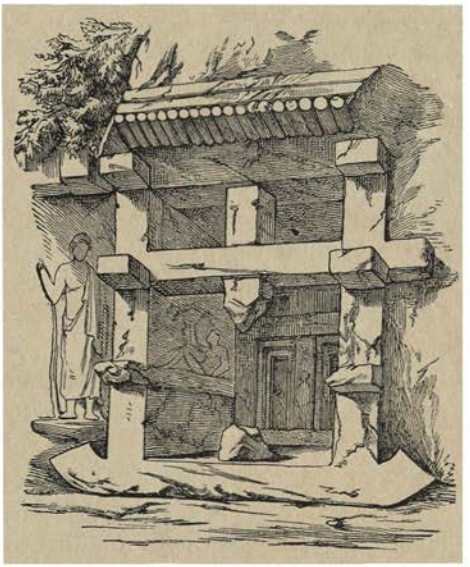


FIG. 171.—ROCK TOMB AT MYRA IN LYCIA.
See pages 315, 316, 375, 376, 387, 397, 403, 407.

It would be unnatural to suppose that these constructions had not their prototypes in buildings of wood."

In other words, to put this in language conforming to what was said on page 314, the earliest traces of architecture indicate endeavors to make pictures—of course, as the material used was stone, to make sculptured pictures—out of that which was being constructed. Fig. 171, page 315, for instance, represents one of the earliest attempts at architecture that has been discovered in Asia Minor. Looking at it, one would suppose that it was a cave, in front of which a framework of wood had been erected. Not at all. It is merely a picture in stone of such a framework. Again, Fig. 172, page 317, represents a very ancient interior of a cave-temple in India. Here, also, one would suppose that pillars and rafters of wood had been introduced in order to support a ceiling which otherwise might fall. Not at all. These apparently wooden columns and beams have been carved out of the native stone of the cave. Why has this been done? Can any one doubt the reason of it? Can any one fail to perceive in them the influence of a picturesque and statuesque motive? Can even those who prophesied so confidently that the theory of this series of essays was sure to break down when it came to be applied to architecture, be so dull as not to see that this wellnigh earliest architecture of which we know was distinctively representative? Observe, too, that it was representative of both mental conceptions and material appearances. No one looking at the entrance of the one cave, or the interior of the other, could fail to recognize both that a man had been at work upon it, and also that he had been at work for the purpose of reproducing that which he had seen elsewhere. It would represent the man, because one would know

that the person who had planned the carving had been accustomed to wooden constructions, and it would represent his thoughts and feelings with reference to these, because it would show his appreciation and admiration of certain of their effects. Otherwise he would never have tried to reproduce similar effects through the use of material infinitely harder to shape.

FIG. 172.—CAVE OF ELEPHANTA, INDIA.
See pages 315, 316, 375, 376, 389, 407.

Now, with these facts in mind, which will give a general conception of the principle to be unfolded, let us recall what was said in Chapter VII. of "Art in Theory" with reference to the beginnings of all the arts. It was pointed out there that they all spring from elaborations for æsthetic purposes of forms used, at first, for merely practical purposes. It is inevitable that a human being, constituted as he is, will represent his thoughts through

inarticulate and articulate utterances, and through drawing and carving pictures. It is equally inevitable that, after a while, his imagination will start to play, so to speak, with the forms through which these representations are made, and that, finally, each of these forms will be developed artistically. The accuracy of this statement can be verified as applied even to the lower forms of the arts of ornamentation. For practical purposes, a man produces a piece of woven cloth or something made through the use of it. That the cloth may not ravel at its edge, a section of it is purposely unravelled here, or a hem is made there, or, if two pieces of cloth be used, a seam is produced where the two are joined. After a little, according to a law which the mind always follows, the imagination begins to experiment with these necessary contrivances, and then the unravelled edge, the hem, the seam, each respectively, becomes a fringe, a border, or a stripe; *i. e.*, each is developed into one of the well-known ornamental resources of the art of the tailor or upholsterer. It is the same in architecture. When the imagination begins to play with the underpinnings of buildings, or with the means of approaching and entering them, it gives us foundations, steps, or porches; when with the parts upholding the roof, it gives us pillars, pilasters, or buttresses; when with the tops, sides, and bottoms of openings, it gives us caps, jams, or sills of doors or windows; when with the roof and its immediate supports, it gives entablatures, eves, gables, spires, or domes.

Fig. 173, page 319, taken by permission from the Introduction to Fergusson's "History of Architecture," will illustrate this. The part of the picture at the left shows us little except brick and mortar and openings. It repre-

sents a house, but not a product of what, in any sense, can be termed the art of architecture. But each section to the right of this shows more and more of the development, through the play of imagination, of artistic possibilities. First, the vertical sections between the windows are brought forward and given the effects of pilasters, which are also connected at their tops by arches. A cor-

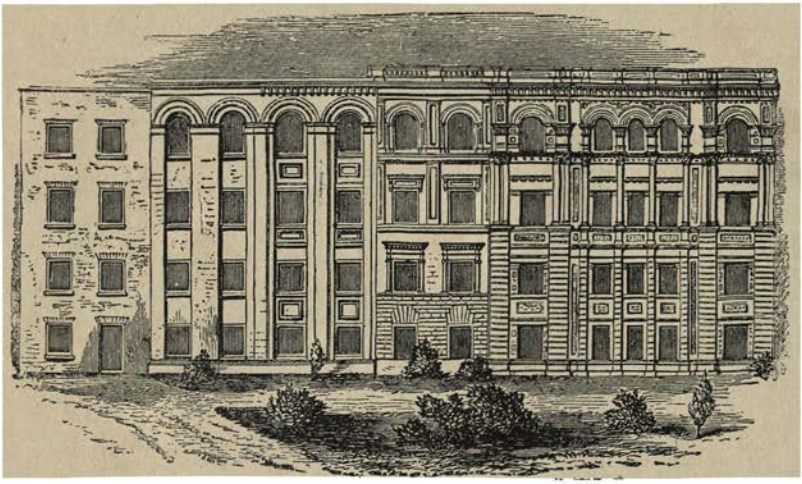


FIG. 173.—DEVELOPMENT OF ARCHITECTURAL FEATURES. FERGUSSON.
See pages 52, 318, 319, 323, 343, 344, 360, 380.

nice too is added to the building. Next the cornice and the horizontal spaces between the windows are ornamented. Next, differently cut stone is introduced into the lower story, horizontal string-courses are made to separate all the stories, and a balustrade is placed above the cornice. Lastly, the width of the building is increased, and almost every feature in it is shaped more ornamentally and grouped more symmetrically.

Such being the process of the development of architecture, let us try to ascertain in what sense the art may be said to represent both mental and material conditions. When an experienced traveller comes upon caves or huts or any buildings that have been used by human beings, even if mere ruins like those discovered on the sites of Pompeii and Herculaneum, he instinctively draws certain inferences with reference to them. These inferences have to do with the structural uses of the different features of a building as related to one another or to its location; and they have to do also with the ideal uses for which, according to the conceptions of the architect, as determined by the requirements of convenience or pleasure, the building is planned. In other words, these inferences are based upon the supposition that the forms can represent both the material method of the construction and the mental purpose of the design.

For instance, a traveller, judging merely from appearances, may say with reference to the methods of construction, that some particular pillar, bracket, lintel, arch, was shaped and placed as it is in order to furnish just the support needed for some particular weight or arrangement of material which is over it. Or he may say that some particular foundation was laid as it is in order to suit some particularly rocky, sandy, or marshy soil; or that some particular roof was pitched as it is in order to fit a dry or a wet climate, to shed rain or snow. Or, judging from arrangements of doors or windows, he may say, with reference to the general uses of a building, that some particular part is an audience hall, a chapel, or a picture gallery. Even if he find nothing except foundations, he can often declare this to be a theatre, and that to be a temple, or a bath, or a private house; and not only so,

but sometimes, as at Pompeii, he can tell the uses of each of the different rooms of the house.

Observe that, in all these ways, it is possible for a building to be representative; moreover, that, just in the degree in which it is so, the interest awakened by it is enhanced. It then comes to have the same effect upon us that would be produced did its builder stand by us and tell us exactly what his thoughts were when designing the arrangement that we see. It is as if he were to say: "I had a conception that it would be a good idea in this position to have an arch projected so, or a ceiling supported by a bracket inserted so; or a foundation in soil like this laid so; or a roof in a climate like this shaped so; or a chapel for a sect like this planned so; or an audience hall for an assembly like this arranged so." And the more one knows of architecture, the more innumerable will he recognize to be the thoughts, and, in the degree in which ornamentation is increased, the æsthetic feelings that it is possible for the architect to represent through these apparently lifeless forms of wood or brick or stone.

CHAPTER XVIII.

ARCHITECTURAL REPRESENTATION OF MENTAL CONCEPTIONS: FOUNDATIONS AND WALLS.

Representation of the Constructive Idea in the Foundation—The Side Walls—Pillars, Buttresses, Pilasters, String-Courses—Effects of Satisfaction and Repose *versus* those of Insecurity in Support Afforded by Pillars—Arches—Brackets—Important for the Apparent Support to be the Real Support—Heavy Cupolas and Ventilators—Unrepresentative Pediments—The Purpose of a Building as Determining its General Plan—As Determining its Interior Arrangements—As Determining its Exterior Appearance—Representative of the Interior Plan through the Exterior—Appearance of Five Cottages Contrasted—The Same Principle Applied to Other Buildings—Street Fronts—Palaces—Colleges—Porches, Windows, and Doors.

TAKING up, first, the representation in architecture of the constructive idea, let us consider this as manifested in the arrangements that are connected, first with the foundations; second, with the sides, and third, with the roofs. With reference to the foundations, it is evident that whatever may be their real character, the effect of stability in a building depends upon their being made visible; and, of course, the same effect may be greatly increased by increasing their apparent sizes, and projecting their shapes outward from the building's base. Notice this fact as exemplified in the contrasted effects produced, on the one hand, by the large foundations under the buildings in Figs. 3, page 24, 13, page 36,

14, page 36, 42, page 83, and, on the other hand, by the smaller foundations under the building to the left in Fig. 173, page 319, also in Fig. 174, page 324. Such contrasted effects with which all of us are familiar show that the representative principle, as applied to architecture, necessitates every building's having a visible foundation; and, not only this, but one of such size and shape as to suggest no doubt of its being equal to the task of giving firm support to that which is above it.

Analogous effects are produced, of course, by arrangements connected with the sides of buildings. Fig. 174, page 324, has been criticised because lacking a visible foundation. But notice, nevertheless, how interesting and æsthetically interesting it is, because apparently representing, by means of visible rafters, the method of the construction of its walls. The same effect will be seen in the cottages also in Fig. 187, page 340, and Fig. 189, page 342. Observe, too, the house from eastern Russia, Fig. 175, page 325. How much more interesting and beautiful this is than would have been possible for a building of its class, had the logs of which it is constructed been covered by clapboards instead of being left exposed!

In accordance with this principle, any arrangements that reinforce the blankness of a wall, and, at the same time, do this in a way to render apparent a real method of construction, increase the representative and therefore artistic effects. Sometimes these effects are produced by pillars as in Fig. 14, page 36; sometimes by buttresses, as in Fig. 41, page 81; sometimes by string-courses, as in Figs. 202, page 363, and 207 page 370; sometimes by other jutting masonry, as in Fig. 25, page 53; and sometimes by a combination of all these methods as in

Fig. 198, page 351. When, however, as in the pilasters in Fig. 176, there is too great an exaggeration of that

FIG. 174.—HOUSES AT MORLAIX, FRANCE.
See page 323.

which is necessary for support, there is danger that the form will appear emphasized at the expense of the con-

325

FIG. 175.—THE STARSCHINA'S HOUSE, EASTERN RUSSIA.

See pages 323, 358, 403, 408.

structive idea, and, of course, this effect, if produced, will be as detrimental as would be the contrary. Notice a further comment on this building on page 348. The explanation of the influence of representative constructive methods is that they impart a sense of satisfaction and repose by seeming to reveal the reasons why they are used. For instance, the impression conveyed by large stone pillars like those in Fig. 177, page 327, could be greatly improved,

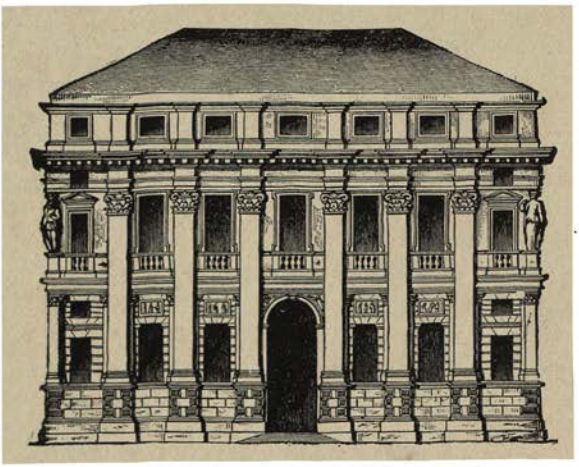


FIG. 176.—VALMARINA PALACE, VICENZA, ITALY.
See pages 324, 348, 358, 380.

and at trifling cost, by causing the stone upon which they rest, or enough stone for them to rest upon, to appear below the gallery. As it is, they seem to be held up by a wooden panelling, which, of course, could not be strong enough for the purpose, Moreover, through the aid of concealed ironwork, they are projected slightly forward from the wall below them, and this again enhances the impression of instability.

Scarcely less strikingly is a like result produced by the unnecessarily complicated arrangements about the lower part of the larger tower and its parasite tower in Fig. 178, page 328. A more simple and dignified as well as substantial effect would have been attained had there been in the under half of the tower only one arch. This should have been shaped, too, like the present middle arch. In that case, the distinct discord produced by the present lower large arch, as seen in contrast to the arch above it, would have been avoided; in other words like would have been put with like, as required by the artistic principle unfolded in Chapter II. of "The Genesis of Art-Form."

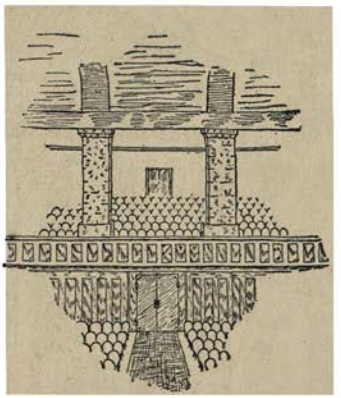


FIG. 177.—EXETER HALL.
See pages 326, 330, 336.

A similar sense of insecurity is conveyed by the heavy gable without a visible arch under it placed over the space behind the large bay window at the left of the building of the University of Pennsylvania, Fig. 179, page 329. In Fig. 180, page 330, again, there is apparently nothing to hold up the stone sides of the upper part of the tower. The roof under them would at once be crushed into splinters if the apparent support were the real support. Another example of a similar effect will, perhaps, make our meaning more clear. It is becoming customary in our country to have a heavy roof supported by concealed iron girders,

even where, from the inside, it is made to appear to be supported by wooded beams. In such cases, to one standing under these beams it is essential that they seem at least large enough to sustain the weight that is above them. Otherwise, the effect produced is one of æsthetic

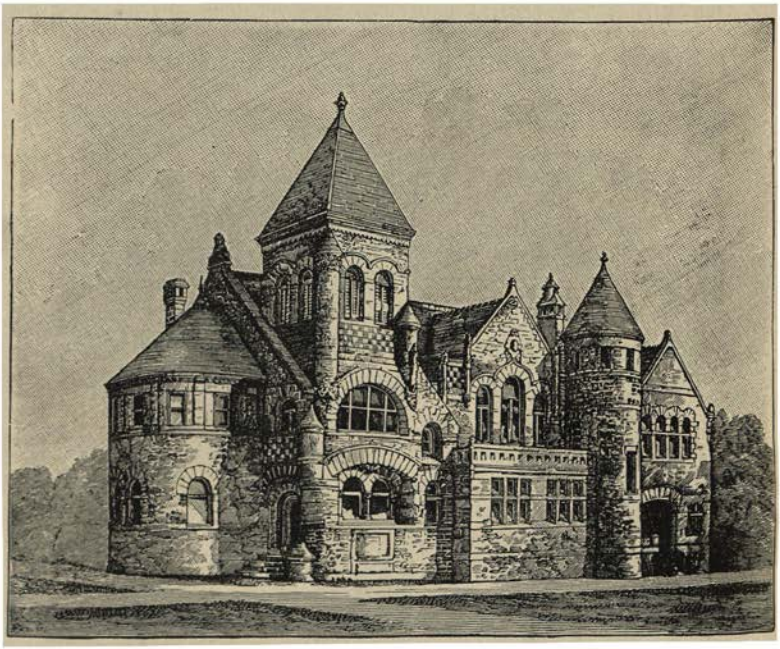


FIG. 178.—AN AMERICAN CHURCH.
See pages 327, 330, 355.

discomfort. For even though a man may be convinced that the roof will not tumble, the slender support represented by the beams will make him feel that, logically, it should do so. Nor is it necessary, in order to experience this impression, that he should know exactly what is the

cause of it. If sensitive to the influences of form, he may merely say that the roof seems too heavy. Why it seems so can not always be told, except by one accustomed to analyze such effects. Fig. 181, page 331, represents a small beam at a corner apparently intended to hold up a ceiling. But a ceiling as heavy as this, if really held up

FIG. 179.—MAIN BUILDING, UNIVERSITY OF PENNSYLVANIA.
See pages 327, 331, 355, 371.

thus, would certainly snap the beam and fall, inside of three minutes.

It is worth noticing, now, that the violation of the principle of representing the method of construction in at least four cases, and, perhaps, in all those that have been cited, is owing, as is this last, to a use of concealed iron.

This is one reason for the effect of the pillars in Fig, 177, for that of the tower in Fig. 180 and, possibly, also for that of the tower in Fig. 178.

In all these cases, too, the exercise of a little more constructive imagination would probably have prevented the architect from making his forms appear to be what they could not possibly be in reality. The effect in Fig. 181 of a heavy roof, for instance, could be obviated by the simple expedient of enlarging the corner beam. But a more radical and, for this reason, thorough way of correcting the error would be to avoid all deceit, and, in accordance with the method in art sometimes termed sincerity (see page 407), to arrange the materials in such ways that the apparent support would be the real support. In an age of iron, why should not the iron be shown, and allowed to reveal its genuine character? If a roof be really supported by steel girders, why should not the steel be visible? A ceiling of wood, revealing its natural colors and grainings, resting on beams of polished or nickel-plated steel, might be made to have effects, both as regards material and color, in the highest sense chaste and beautiful. The metal might even be ornamented and as legitimately too as if it were bronze. Look at the ceiling in the church at New Walsingford, England, in Fig. 182, page

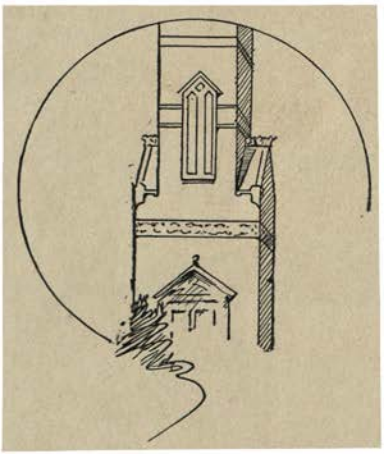


FIG. 180.—HIGH SCHOOL TOWER.
See pages 327, 330.

332. Why might not something of an analogous character be produced through a combination of wood and metal? After all, the difficulty, in our age, is not to find new methods of producing genuinely artistic effects, but to find artists with sufficient originality to recognize their possibilities. Nor is there a surer way in which they may be led to realize them than through coming to know and feel and embody in their products the principle that all art, even constructively considered, should be representative.

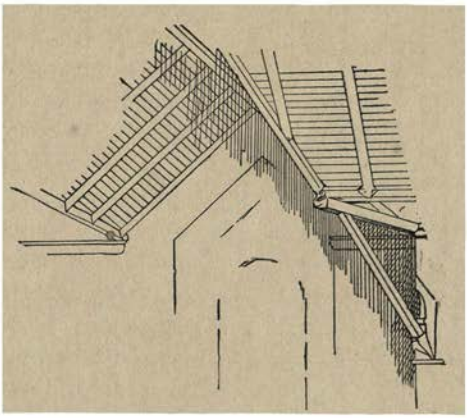


FIG. 181.—SUPPORT OF A CHURCH ROOF.
See pages 329, 330.

This failure to represent the method of support, or even, sometimes, the fact of sufficient support, is exceedingly common in modern architecture. Notice the cupola over the central, or rather corner building, evidently a library or chapel, in Fig. 183, page 333; also the ventilator over the centre of the Old South Church, Fig. 24, page 52; also the turrets at each corner of the square central part of the Pennsylvania University, Fig. 179, page

329. Looking at such features, one is obliged to draw one of two conclusions: either that they are slight constructions of wood, in which case they suggest incongruity with the stone of the buildings under them, and instability both on account of their material and of their liability to be destroyed by fire; or he must conclude that they are of heavy and substantial material; but if he do this, the impression of instability is increased, because no roof could seem strong enough to hold them. The former conclusion would apply also to the ventilators on the roofs of almost all the buildings in Fig. 183, page 333, which look as if their architect had actually intended them to seem ornamental! But ventilators would be better joined to the chimneys. They certainly do not add to dignity and substantiality of effect, when constructed as if they were intended to be traps in which to catch fire-brands.

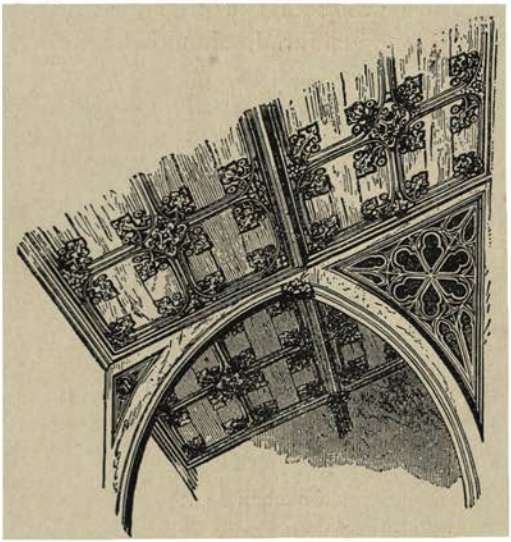


FIG. 182.—DECORATION OF A CHURCH CEILING.
See page 330.

Another common violation of this representative principle, as well as of that of "sincerity," as applied to con-

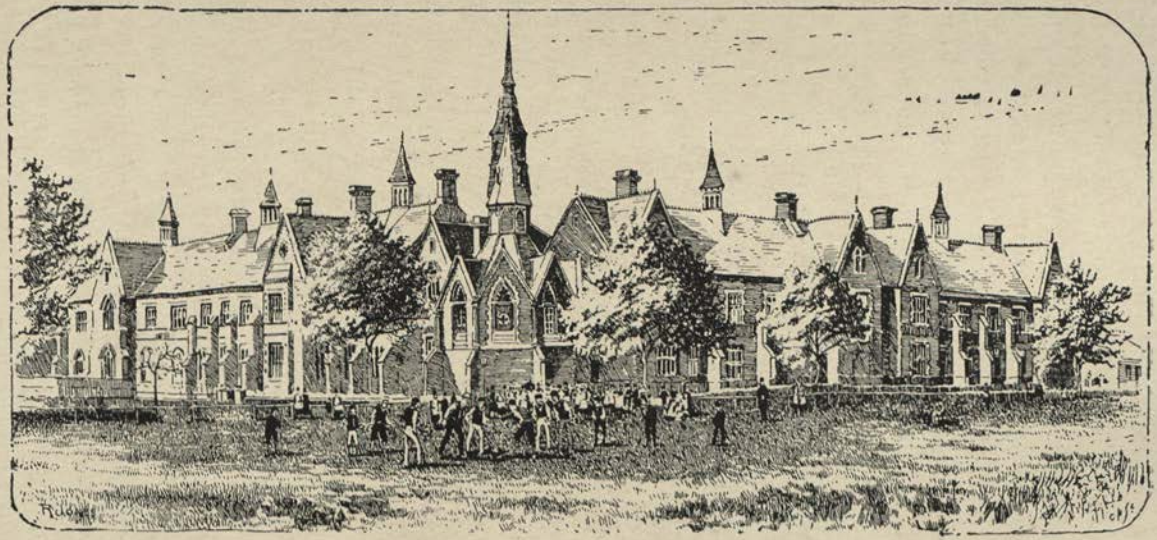


FIG. 183.—NORMAL SCHOOL AT CHRISTCHERD, NEW ZEALAND.

See pages 331, 332, 355, 358, 359.

struction, is in such arrangements as can be noticed over the side aisles on each side of the tower in the Madison Square Presbyterian Church in Fig. 201, page 361. It is difficult to conceive how any architect could imagine that it would improve the appearance of the front to misrepresent the character of the roof behind it. Those whom the gable there fails to deceive cannot avoid æsthetically resenting the attempted deception; and those whom it does deceive cannot avoid having their thoughts disturbed by trying to conjecture how a roof so shaped can afford a watershed for the rain. Even the façade of Trinity Church, Boston, Fig. 25, page 53, is objectionable, and, in this regard, far less satisfactory than that of the finely designed cathedral by the same architect (Fig. 184, page 335). The square front of Trinity does not represent the roof behind it; nor is the effect of this fact at all counteracted by the effort of the misrepresented apex to put in an appearance through rising over the obstruction just above the centre. The objection to the whole is, that the wall of a building should represent support. This square form does not represent the method of support; nor does it, apparently, support anything itself. Therefore it appears to be a sham. Moreover, it produces mental perplexity. It causes one to ask: What, exactly, is the shape of the roof? and, even though this can be guessed, to ask again: How is such a roof affixed to such a wall?

Having examined now the representation of the material method of construction, as manifested in the arranging or adjusting of one feature to fit another, let us pass on, and examine the representation of the *mental object*—in other words, of what we generally understand when we use the term *plan*.

The first thought suggested by this term has reference to internal arrangements. A building is planned for

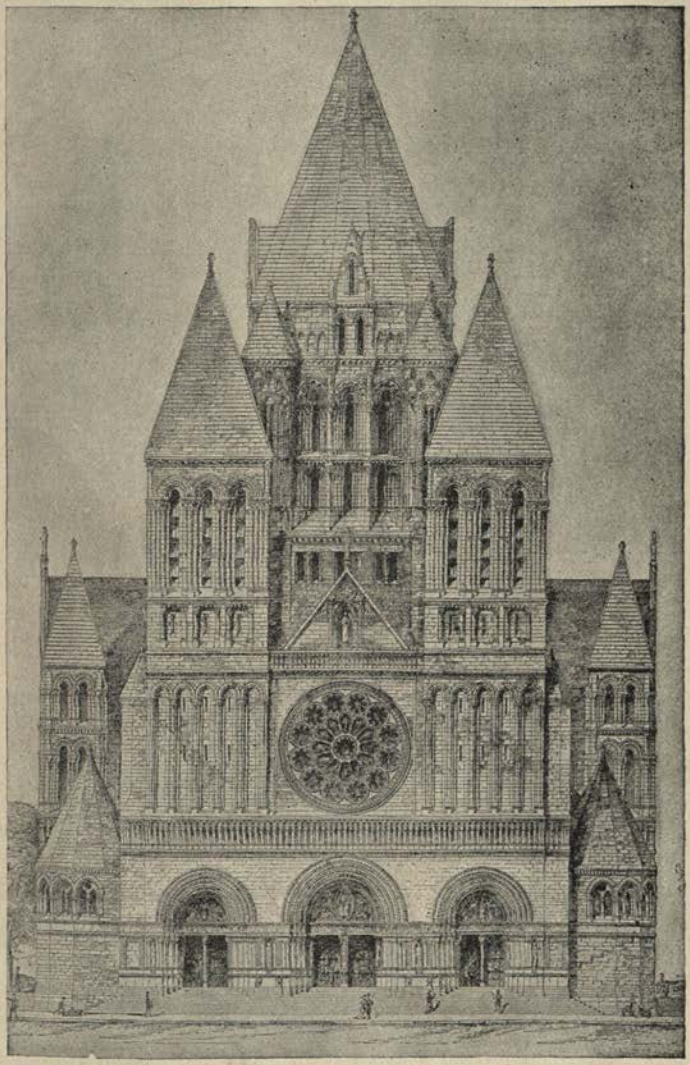


FIG. 184.—ELEVATION OF PROPOSED CATHEDRAL, ALBANY, BY H. H. RICHARDSON.

See pages 334, 378, 380.

a certain use; and, when well planned, these arrangements will almost necessarily reveal it. As was said on page 320, when men examine ruins, whether in Greece, Asia Minor, or Italy, they are able to make out a theatre, a temple, a bath, or a private house, and they can often tell us the uses of each of its different rooms. The most primitive buildings are thus recognized to be designed to attain certain ends; and, for this reason, they can be said to represent these. Evidently our more modern architectural products can continue to do the same. Theatres, churches, markets and private houses of the present, if really adapted for that for which they are designed, will represent this. An audience hall, for instance, in which it is desirable in every part to hear and see what is going on in some other part, demands an open space free from pillars or other architectural contrivances interfering with sound or sight. Such pillars, on the other hand, may add greatly to the convenience of an arcade, a market-place, or a bourse, where people need, as in the ancient Forum, merely shelter, while promenading or bargaining in comparatively small as well as separate groups. In ritualistic churches again, in which an elaborate ceremony, intended for the eye, is carried on about an altar considered to represent in a peculiar sense the divine presence, a chancel is in place; but not so in a building for non-ritualistic services. In this, a chancel means nothing. And yet, here too, a skilful architect can produce effects equalling those of the chancel through recesses made for the choir and pulpit. On the surface, facts like these seem so self-evident, as hardly to need mention. But, for some mysterious reason, many of our foremost architects, in their practice, totally disregard them. Notice again, Fig. 177, page 327.

Another fact, apparently self-evident, is that when a building is to be planned, the first thing to do is to decide upon the arrangement of the halls and rooms of the interior, and let this arrangement determine that of the exterior. Yet the old Douglas Park University of Chicago is said to have been partly erected, in accordance with a purpose to produce a certain external effect, before any attempt whatever had been made to divide up the space inside of it.

But, once more, if the internal arrangements are to determine the external ones, as must evidently be the case in all logical construction, then, in the degree in which this principle is carried out artistically, *i.e.*, in such a way as to be made apparent in the form, that which is on the inside must be represented on the outside. In other words, a building to be made expressive of the thought, which, in this case, would mean the design of the artist, must have an external appearance which manifests the internal plan.

Admitting this, let us ask what the features of the internal plan are which in any case may supposably be manifested. Of course, they are the sizes—*i.e.*, the heights and widths—and the numbers and the uses of the different rooms. Now let us ask if, actually, it is possible for the exterior to manifest these, and, if so, how? For an answer, let us trace the development of the methods of doing it, starting with comparatively primitive exemplifications of them, through the use of four cottages taken with the kind permission of Mr. Ralph Nevill, from his very interesting illustrated work upon "Old Cottage and Domestic Architecture."

Fig. 185, page 338, shows us a cottage at Chiddingfold, England. In this not only is no desire manifested, through the arrangement of doors and windows, to pro-

duce a symmetrical effect; but—what concerns us more now,—no indications are given, on the outside, of the widths or heights or sizes or uses of the rooms on the inside. We know that there are two stories and, possibly, an attic; but of this latter we can only form a guess. The whole building is almost totally expressionless, and—what in this case is the same thing—uninteresting.

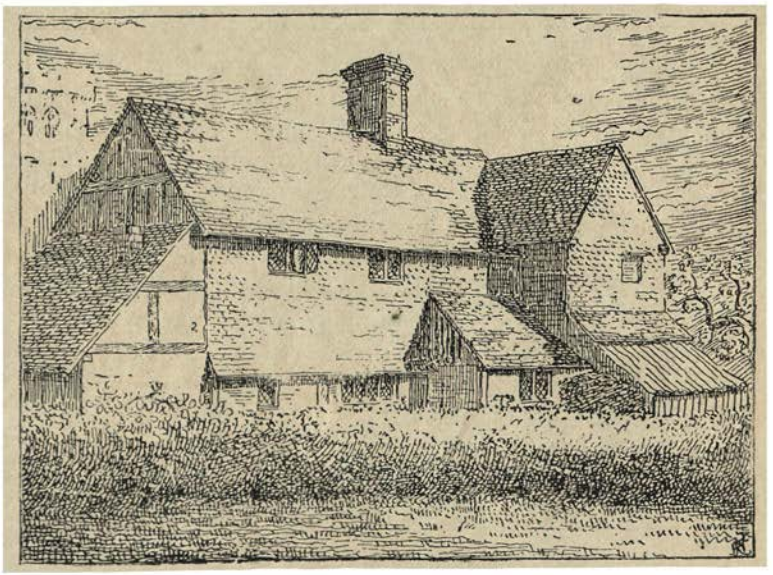


FIG. 185.—COTTAGE AT CHIDDINGFOLD, ENGLAND.
See pages 54, 337, 339, 358.

Fig. 186, page 339, a cottage at Sandhills, Witley, England, is somewhat more representative. Four of the windows are arranged in some order, though we feel like demanding a fifth window over the door, and a sixth at the door's right side. The beams, too, seem to reveal

something of the mode of construction, and of the arrangement of the interior, though of this last we are not certain. At the same time, this cottage is more interesting than that in Fig. 185.

In Fig. 187, page 340, a cottage at Tuesley, we can notice a decided increase in representative features. The windows on the second floor placed, as they are, just over

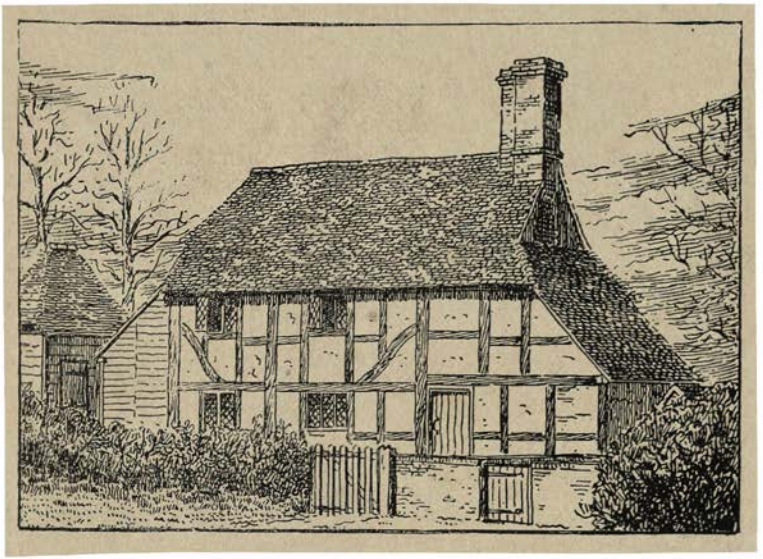


FIG. 186.—COTTAGE AT SANDHILLS, ENGLAND.
See page 338.

the openings on the first floor, show some regard for artistic effects. The vertical beams on the outside of the lower floor apparently give us a clew to the separations between rooms in the interior, while the projection over the lower windows indicates the place of the second story's floor.

Fig. 188, page 341, the inn at Chiddingfold, contains all the representative features of the last with some additions. It is still more interesting, because still more emphasis is given in it to the entrances, to the separations between stories, and to the chimneys. The front projection below the second floor makes a covering for the doors; and

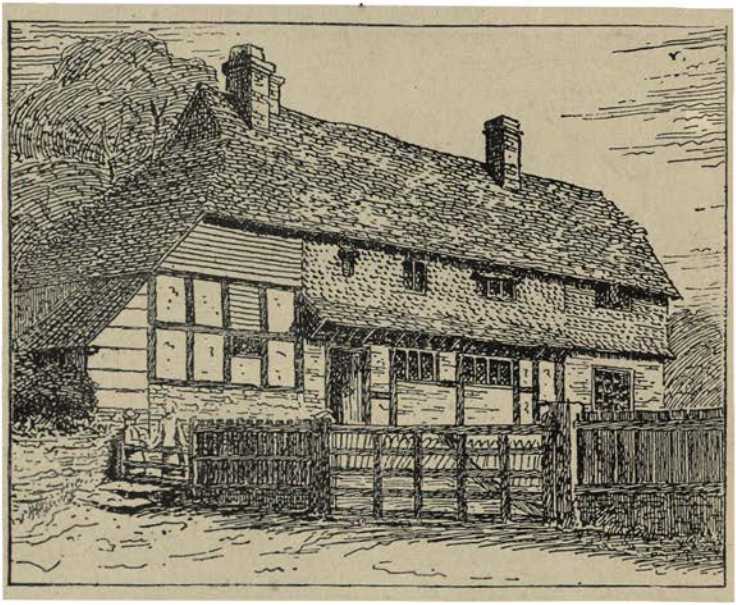


FIG. 187.—COTTAGE AT TUESLEY, ENGLAND.
See pages 323, 339, 358.

these doors, evidently, lead into the office of the inn, or into a shop or bar-room; because, as one can see, the entrance into the inn's hall is at the side, a visible proof of which is afforded not only by the porch there, but by the irregularly arranged windows above it, lighting a stairway.

Finally, in Fig. 189, page 342, Unsted Farm, as it is called, the architect has secured representative effects both of form and of significance; or rather, as is always the case where this is well done, ornamental effects of form through emphasizing features that have significance. These effects, as seen in the beams of the exterior, are no

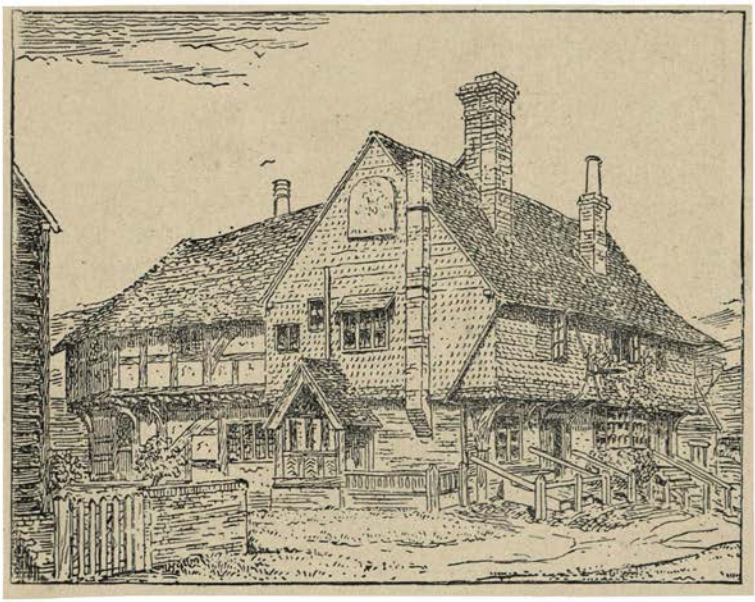


FIG. 188.—INN AT CHIDDINGFOLD, ENGLAND.
See pages 340, 358, 359.

more necessary than the same as seen in the chimneys; but they add greatly to our interest, and they do so largely because this æsthetic emphasizing of them makes them represent also the mental design. As we look at the building we know almost exactly the widths, heights,

sizes, and shapes of all its prominent rooms, and can form a very accurate guess of that for which each of them is intended. Of course the same method might be applied to any building.

Walls in which there are doors, windows, and projections such as pilasters, pillars, buttresses, or string-courses,

FIG. 189.—UNSTED FARM, ENGLAND.
See pages 323, 341, 358.

—and the same is true of foundations, porches, and roofs,—awaken as much more interest than do blank walls, as bodies do when infused with a soul having the power to express thought and feeling than they do when they are merely corpses. Of course, too, the more clearly the architec-

tural features reveal not only that there is thought and purpose behind them, but what this thought and purpose is, the more successful is the result. How much more so

FIG. 190.—MARIEN PLATZ, MUNICH.
See pages 54, 344, 360, 380.

is even the house at the left of Fig. 173, page 319, than would be a blank wall! How much more successful than

this house is each of the houses to the right of it in the same figure! Observe, however, the very great increase of interest awakened by the fourth style of front, and, for the reason that, in this, the different stories are, for the first time, clearly indicated by the string-courses between them; while, in the two upper stories, other divisions are indicated apparently separating rooms. Compare, again,

FIG. 191.—UNTER DEN LINDEN, BERLIN.

See pages 344, 360, 364.

the inexpressive front in the building facing us in Fig. 190, page 343, "The Marien Platz of Munich," or the fronts in Fig. 191, page 344, "Shops in the Unter den Linden in Berlin," with the less costly, but more representative fronts at the left of Fig. 193, page 346, "A Street and Belfry at Ghent"; or with the fronts in Fig. 192, page 345, "The Boulevard of St. Michael, Paris." Compare,

FIG. 192.—BOULEVARD ST. MICHAEL, PARIS.

See pages 84, 344, 363, 364, 370, 380.

too, the inexpressiveness of the façade of the Strozzi Palace at Florence, Fig. 194, page 347, with the expressiveness of that of the Chateau of Chenonceau, Fig. 195,

FIG. 193.—A STREET AND BELFRY AT GHENT.
See pages 344, 362, 380.

page 348. In the former, the walls are entirely blank with exception of horizontal string-courses; but these

being immediately under the windows, do not suggest any connection with the floors; though they do suggest one æsthetically essential appearance, which is that of being an artistic adaptation of a useful feature: *i.e.* of a sill. In the chateau the string-courses are in the right

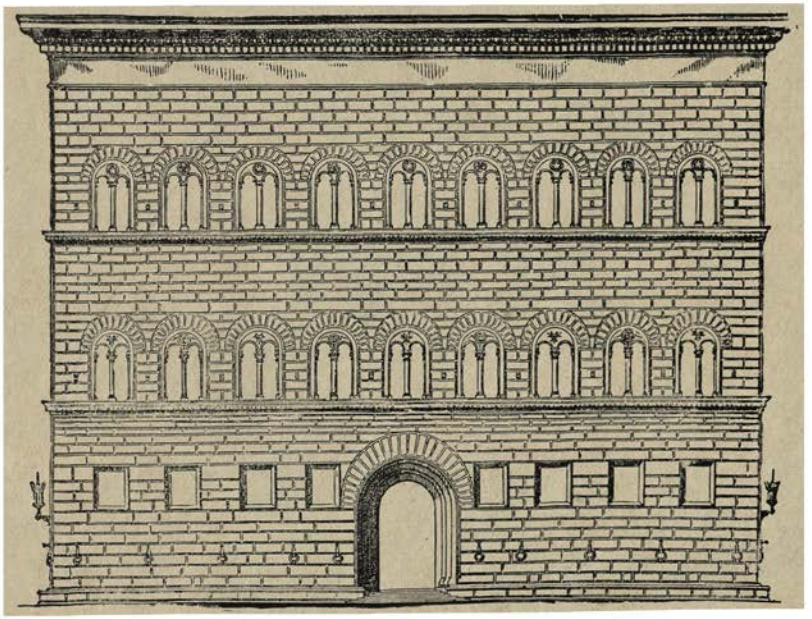


FIG. 194.—STROZZI PALACE, FLORENCE.
See pages 346, 347, 359, 360.

places, and the heavy masonry between the windows makes us feel, even without vertical projections, that stone partitions are behind them. Representatively considered, too, though one might object, on other grounds, to the mixture of styles, the wing at the left

clearly revealing itself to be a chapel, is not the least commendable feature. Fig. 196, page 349, shows both horizontal and vertical divisions. As a principal entrance into the grand court of the Palace of the Louvre, the excess of

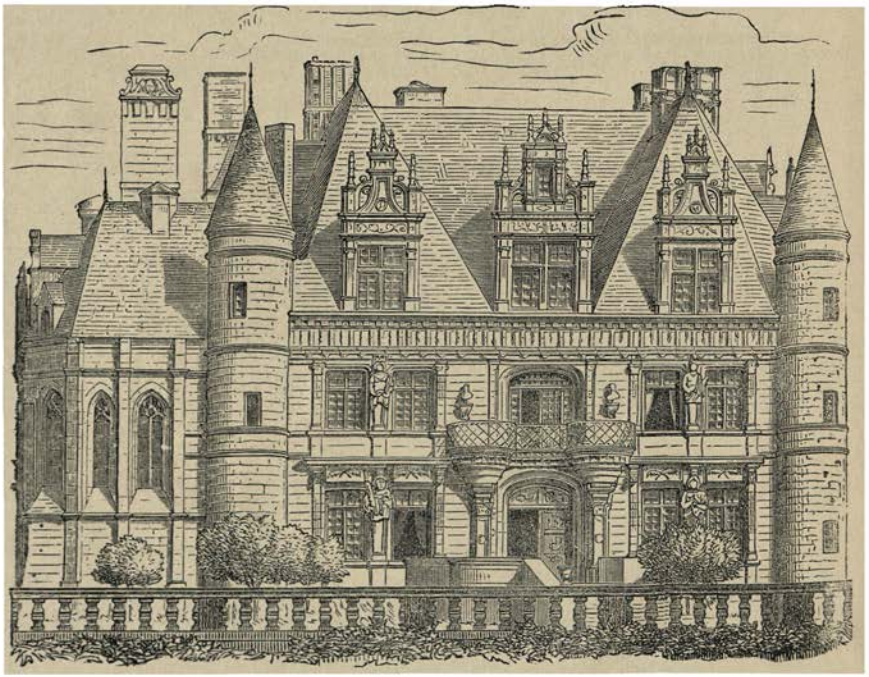


FIG. 195.—CHENONCEAU CHATEAU, FRANCE.
See pages 346, 347, 352, 378.

ornamentation, evinced in its pillars, may be justified. There is no question, however, that one has a different feeling with reference to the front of the Valmarina Palace of Vicenza, Italy (Fig. 176, page 326), especially in

view of its unsuccessful upper story. The pilasters do not represent any arrangements on the interior, being merely imitative of effects in other buildings to which the architect had become accustomed. Nor does the cornice represent any constructive use. The upper story would have been just as firmly placed, had it been below the cornice instead of above it.

Once more, compare, aside from what may be said of their roofs to which reference will be made presently, Queen's College, Galway, in Fig. 197, page 350, with the University at Sydney, Australia, in Fig. 198, page 351. Both buildings would be called non-ecclesiastical Gothic; but notice the difference between the artistic effects of the two, owing to the greater representative characteristics of the latter. In the first, is a string-course between the stories, and an indication of a large room, probably a chapel, over the central doorway. But in the second, besides string-courses, there are projections of the walls and also buttresses, and arrangements of windows and doors, which seem, at least, to reveal the character of almost every part of the interior. At the extreme right is, undoubtedly, the chapel; then, to the left of it, judging from the corresponding gable on the nearer side of the central tower, is a high room, which, as indicated by both the windows and door, must be either a library or a museum. In the section just to the left of the tower

FIG. 196.—PAVILION OF RICHELIEU, PARIS.

See pages 52, 348, 358, 359, 380.

FIG. 197.—QUEEN'S COLLEGE, GALWAY.

See pages 84, 349, 355, 359, 360, 380.

FIG. 198.—UNIVERSITY AT SYDNEY, AUSTRALIA.

See pages 84, 324, 349, 352, 355, 359, 360, 362, 369, 380.

comes first, judging from the windows, a stairway; then on the lower floor, two rooms, and on the upper floor, one large room; while between the two gables at the left, are three rooms on the lower floor, and two on the upper. At least these are the interior arrangements which are indicated by the exterior, and whether or not these particular rooms are in the building, the fact of the indication of them is of itself sufficient to make the whole interesting, which cannot be affirmed of the front of Queen's College, Galway.

In speaking both of the Chateau of Chenonceau, Fig. 195, page 348, and of the University of Sydney, Fig. 198, page 351, reference was made to the way in which high long windows represent high large rooms like those devoted to divine service, to libraries, or to museums. In this connection, too, it may be well to direct attention again to St. Isaac's Church, St. Petersburg, Fig. 12, page 35, where, as was said, the large porch and numerous doors of the front suggest preparation for the entrance and exit of large crowds; while the great dome over the centre suggests preparation for large audiences requiring plenty of air.

CHAPTER XIX.

ARCHITECTURAL REPRESENTATION OF MENTAL CONCEPTIONS.—ROOFS.

Domes—False Domes—Useless Cupolas, Pinnacles, Towers, Spires—The Same Used as Memorials—Even these should be Artistic and so Representative—This Principle as Applied to Spires and Towers—The Roof Proper—Rounded Roofs—Roofs as too Large and too Small or Invisible—Gutters and Cornices, Plain and Castellated—Balustrades as Representing Flat Roofs—Visible Roofs in City Streets—Paris Streets and the Court of Honor at the Columbian Exhibition—Streets in New York—Objections to High Buildings—Legislative Methods of Preventing them—Æsthetic Regulations about Sky-line, Color, and Style—The Sky-line and Mansard Roof.

THE paragraph ending the preceding chapter suggests a transition to the subject of roofs, of which every dome is a modification. These, if apparent at all, are, owing to their situations, necessarily conspicuous, and, for this reason, afford an architect an opportunity of manifesting whatever ability he may possess in a conspicuous way. This fact explains the origin of most of the shapes that are given to them, as well as of the features which are added to them beyond those demanded by the requirements of shelter. The dome in Fig. 12, page 35, for instance, is one of these features. It is not prompted by any desire to secure a useful end. Merely because any roof is conspicuous, the artist conceived the idea of arranging this one so as to appear con-

spicuously artistic; and he produced a form which may be said to be a result of imagination as moved to effort by the play-impulse (see Chapter VII., "Art in Theory"). However, in the place where the dome is, and over a building designed as is the one under it, it also represents, as has been said, the amplitude, both horizontal and perpendicular, of the space beneath it.

FIG. 199.—SCHILLER PLATZ, BERLIN.
See pages 354, 357, 380.

Suppose, however, that the dome did not represent this space. Suppose that, therefore, owing to our associations with domes in general, it misrepresented what was beneath it. Suppose that it was no dome at all, because it was solid beneath, and spanned no space; and that, therefore, it manifested no constructive skill nor any kind of technical mastery over material difficult to work—what then? Facing us in Fig. 199, page 354, is one of two structures flanking the Royal Theatre on the Schiller Platz, Berlin. What this structure really is, is not at all what it seems to be. Neither its pillars nor any part of it are constructed of stone. All is of wood and stucco. Under the apparent dome are only rough beams and rafters holding it up; and, though directly behind it is a

church—the much smaller and plainer building to its right—the pretended and pretentious entrance in front of this is not used for a portico even on Sundays, its only apparent object being to furnish a perfect example of architecture that is not representative.

Without being so conspicuously out of place, similar characteristics are manifested by any number of smaller cupolas, pinnacles, towers, and spires in almost every city or town of modern construction. Think how many of these are supposed to add architectural interest to the chapels, recitation halls, and dormitories of our ordinary American colleges. Notice, for instance, on the main building of the University of Pennsylvania in Fig. 179, page 329, the cheap wooden turrets above the front entrance, and others at each side of the building above the bay windows. Nor does any æsthetic effect produced by them justify the two large towers—especially towers so cheaply constructed—which flank the building. This, as a whole, would have manifested more artistic unity, had the money to be expended been concentrated upon a single tower, placed in the centre, as in Fig. 198, page 351. Indeed, even in this latter building, the general appearance is somewhat impaired by the little towers at the sides, unobtrusive as they are. Recall once more, too, the ornamental cupola and ventilators on the roofs of the Normal School, Fig. 183, page 333; and the turrets on Queen's College, Galway, Fig. 197, page 350; also, the crowding of features about the tower in Fig. 178, page 328. In none of these cases will one who is willing to think of the subject, find it difficult to perceive what is meant when it is said that, if it had not been for the desire to ornament unduly, the impression conveyed would have been more satisfactory, because more simple, strong, and

reposeful. In the efforts of art as of all human action, it is important to remember that the fussy is never consistent with the dignified.

But it may be asked now, very reasonably, whether representation of the method of construction or of the internal design is the only justification for using such features as we have been considering? Take the dome on St. Isaac's, Fig. 12, page 35. Besides spanning a large interior space, does it not serve also as a memorial of the Head of the church and of His work? And, as such, is it not as appropriate as any other monument erected in commemoration of any other person or event? And, if this be so, should the result not be judged by the appearance which it presents rather than by any internal arrangement which it may be supposed to represent?

To the first two of these questions an affirmative answer can be given; but not to the last one, except with modifications; and for this reason: The way in which it is asked shows a misconception of that which is necessary in a monument or memorial. What is it that is necessary? We can determine this by recalling the fact that the moment men erect anything but the plainest tombstone sufficient to convey information concerning the person buried beneath it, they begin to be actuated by an æsthetic motive. But according to the principles unfolded in "Art in Theory," an æsthetic motive tends to the representation both of material and of mental conditions. Therefore, unless the dome represent both the material space beneath it, and the mental purpose for which this is to be used, it is, so far, unsuccessful. Notice, too, that it fails of success, as is true in all such cases, on account not of something that can supposably exist independently of the form, but of something that ought to be under the

form, as the soul is under the body. An unrepresentative monument is a soulless monument; and, for this reason, unfit to serve any grand memorial purpose. Architectural features that do not show skill in representation, do not show distinctively artistic skill, which is manifested in nothing so much as in adapting material means to mental ends. To apply this principle to roofs, it is the ingenuity with which their necessary features are turned into those of a dome, as well as the difficulties overcome in doing this, that gives value to the dome. Judged by this test, of course, the Berlin ornamental structure in Fig. 199, page 354, has scarcely any value.

The same principle applies to the spire of a church. Its character, too, is partly useful. It enables strangers to know where to find a place of worship. But in part, also, especially as it has been developed, it is monumental and ornamental. For this reason, care should be taken to have it appear not essentially cheaper than the edifice to which it is attached. As a rule, a stone church should have a stone steeple, not a wooden one. On large public buildings, again, such as schools and colleges, a cupola, or any like arrangement, can accomplish a useful purpose. It can serve for a clock tower, belfry, or observatory. But if it cannot do this, it would generally better be omitted. The same can be said of towers on houses situated in city streets, where they are overtopped by surrounding buildings, or placed in positions where they themselves need not be seen from a distance, or where other things need not be seen from them; that is to say where there is no possible use to which they can be put. Only where architecture, which is a development of that which is useful in building, turns into ornamental features things primarily intended to be of use, is it carrying out the principles

of representative art. When it is doing anything else, as in arbitrarily introducing unnecessary features in order thus to obtain something that can be made ornamental, it is in danger of carrying out no principles of art whatever.

Now turning from domes, spires, towers, turrets, and pinnacles, which are ornamental modifications of the roof, let us consider, aside from these, the roof alone, which, in many forms of architecture, is itself shaped so as to serve the purposes of ornament. There is no need of reminding careful observers of the importance of the feature to be thus examined, or of the difficulty experienced in treating it successfully. Many a building appears all right as far up as the top of the upper story, and then it appears all wrong. There are several reasons for this, but it is not too much to say that a chief one is the difficulty experienced in trying to make the roofs truly representative. In the case of small houses there is no great excuse for not doing this. It is always possible to make a roof shaped like that in Figs. 13, page 36; 175, page 325; 183, page 333; 185, page 338; 187, page 340; 188, page 341; 189, page 342; or 196, page 349, or without reference to the arrangement of the cornice and wall under it Figs. 176, page 326, or 211, page 377. The real difficulty comes when there are large spaces to be spanned, either in a single building or in many connected buildings, like those lining the streets of a city; or when again, either in such buildings or in others, convenience or safety renders a flat roof desirable.

In these days, when we think of large spaces to be spanned, our minds recur, at once, to railway stations and their rounded ribs, if not entire roofs, of iron. To these there can be no possible æsthetic objection. Nor is there any reason why iron should not be used with

smaller roofs of similar shape (see Fig. 196, page 349); nor why, when so used, the fact of its presence should be concealed. Yet this is often done, and done so effectively, and by architects whose imaginations are so incapable of originating a successful lie, that the result is not only negatively non-representative but positively misrepresentative. Of course, this condition can be satisfactorily changed only when architects, obliged to use such material, become thoroughly convinced that it is always possible to attain an æsthetic end without violating any first principle of art; in other words, that it is possible to ornament even iron, and thus, without introducing anything foreign to utility, and therefore unrepresentative, to adapt it to artistic purposes. It is singular, as intimated on page 330, that it has not yet been recognized how chaste and beautiful roofs of this kind, genuinely constructed, might be made to appear. They would be expensive, of course, but not disproportionably so to the carved stone columns which would probably accompany them in buildings of the character in which they would appear.

Where the space to be spanned is large, whatever may be the material of the roof, too much of it or too little of it is apt to be made visible. For instance, the effects of the Strozzi Palace, Fig. 194, page 347, and Queen's College, Galway, Fig. 197, page 350, are rendered unsatisfactory by the absence, among other things, of a visible roof. Notice how much more expressive than this latter building, on account largely of the presence of this feature, is the University at Sydney, Fig. 198, page 351.

But now, again, compare the primitive arrangement, in which are gutters at the sides of the roof, as in Fig. 188, page 341, and in Fig. 183, page 333, with the artistic devel-

opment of the same in the cornice at the top of the Strozzi Palace, Fig. 194, page 347, and also at the top of all the shops on the Unter den Linden, Berlin, Fig. 191, page 344. In these latter buildings, there are possibly no gutters, nor any necessity for them within the cornice, because the whole roofs are inclined slightly toward the rear, being what are termed flat.

Compare again the castellated ornamentation under the visible roof on the wall of the University at Sydney, Fig. 198, page 351, and also of the building facing us in the Marien Platz, Munich Fig. 190, page 343, with the same kind of ornamentation at the top of Queen's College, Galway, Fig. 197, page 350, and the Oxford High School, Fig. 206, page 369. As originally used, in the mediæval castles, this castellated form accompanied a flat roof. See Fig. 200, page 360. Therefore, by way of association, in case no visible roof appears above it, it may be said now to represent a flat roof.

FIG. 200.—MEDIÆVAL CASTLE.
See page 360.

But it may be asked, whether there is no possible method of topping a wall so as to cause it to represent a flat roof in a less indirect way? Look at the balustrade above the cornice over the houses at the right of Fig. 173, page 319, also over the building at the right of Fig. 201, page 361. What does a balustrade as thus indicated represent? What is it for? What but to keep people from falling over? But if they need to be kept

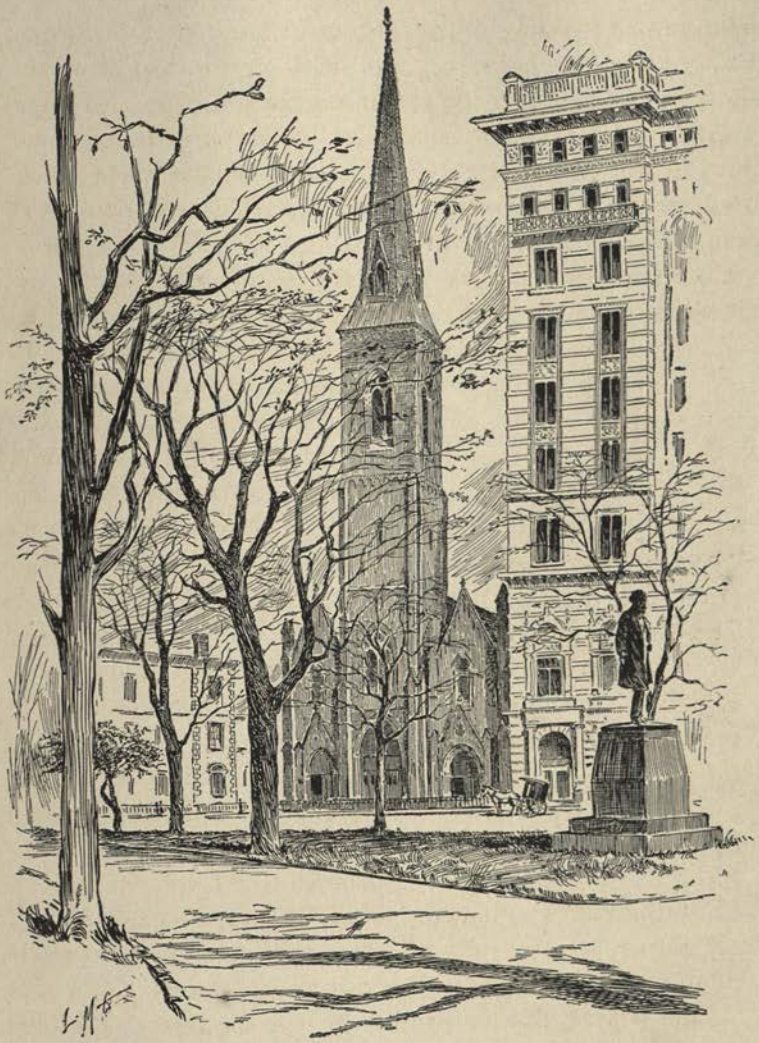


FIG. 201.—MADISON AVENUE, NEW YORK.

See pages 334, 360, 364, 380.

from this, they must be expected to walk on the roof behind the balustrade. But how could they walk on a roof unless it were flat? A few questions like this will lead to the inference that a balustrade naturally represents a flat roof. Now, if we compare with this inference, the fact that this sort of ornamentation is recognized by almost everybody as, on the whole, the most satisfactory for a wall supporting a flat roof, we shall have obtained at least one proof that when by conscious design or unconscious accident the architect faithfully represents actual conditions, he does exactly what will fulfil the artistic conceptions of the majority of people.

If there must be a flat and invisible roof, undoubtedly some such arrangement as this is the best through which to indicate the roof's exact character. Still, when a building is not too high, the desire for a visible roof is natural. How shall it be embodied in the result? On the left in The Street and Belfry in Ghent, Fig. 193, page 346, are arrangements in which such results are obtained, but it is evident that they are hardly feasible where buildings are very large, or where there are heavy falls of rain or snow. Besides this, it is a valid æsthetic objection that such roofs interfere with the appearance of a street as a whole, because they render it difficult to attain effects of uniform height. However, at the right of this same figure, is a building in which gables somewhat like those on the opposite side of the street are placed above a clearly defined horizontal cornice; and this cornice might be continued from building to building of the same height, and thus secure a uniform sky-line. In the University at Sydney, Fig. 198, page 351, we have a large roof evidently constructed on a similar principle; and in the Trinity School, New York, Fig. 202, page 363, we have a smaller

and exceedingly satisfactory roof of the same kind. When the spaces to be spanned are not too great, a roof of this general character, is probably the most apt to be successful. It is a genuine roof. In all regards it is exactly what it seems to be, with no contrivances designed to conceal its real shape. Moreover, the line on which rest the sills of the upper windows, as well as the line formed by the tops of the gables, would render effects of uniform height and therefore of an unbroken horizontal sky-line possible, were buildings thus planned arranged in groups or on streets.

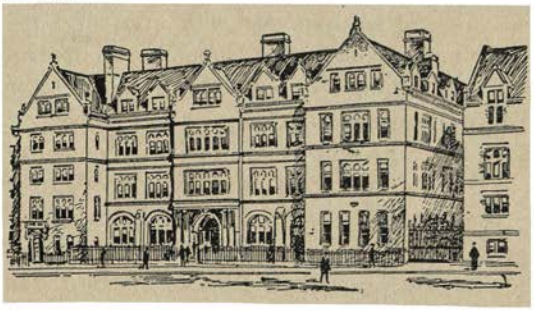


FIG. 202.—TRINITY SCHOOL, NEW YORK.
See pages 323, 362, 369.

That these effects are desirable, any one who has seen the streets of Paris (see Fig. 192, page 345), or who saw the "Court of Honor" at the Columbian Exhibition at Chicago (Fig. 203, page 365), does not need to have argued. At Chicago, the universally recognized æsthetic result was largely due to two causes—a uniform color and a uniform sky-line. The buildings manifesting these were neither of uniform sizes, nor styles. Even their heights were different, the Hall of Mechanical Arts overtopping by fully one half those surrounding it (see the building at the

left of Fig. 203, page 365). But it was flanked on all sides by a very wide modification of a portico, and it was with the height of this portico alone that the other buildings facing the Court of Honor were compared. The success of the arrangement ought to be recalled by every architect or builder who takes any pride in the appearance of the city or town in which his work is to be seen. If not, he might learn a lesson at least from the way in which the subject is regarded and treated in Paris, as illustrated in Fig. 192, page 345. The general effect of the Unter den Linden in Berlin (Fig. 191, page 344) corresponds very closely to that of one of our older American streets; and how much inferior it is to the French Boulevard need not be argued.

But are we improving? If so Fig. 201, page 361 can show us exactly the direction in which we are doing so. One who claims that architecture may be, and should be, representative of a state of mind, ought not, perhaps, to complain of the appearance of this street. No one can deny that it is representative. The trouble is that it does not represent what is agreeable or inspiring. It represents, alas, New York. It represents the commercial spirit entirely overtopping the æsthetic and sanitary in general; and the religious and domestic, as manifested by the church and house to the left, in particular. In more senses than one it represents selfishness and greed, entirely throwing into the shade beauty, health, kindness, rationality, and safety. Were it possible for any artistic motive to appeal to our legislatures, they would pass laws enabling owners of churches and houses afflicted as are these at the left of this picture, to obtain from any one erecting a building like the tall one, damages of an amount to render its erection impossible. Beautiful

FIG. 203.—COURT OF HONOR AT COLUMBIAN EXHIBITION.—"COSMOPOLITAN" MAGAZINE.

See pages 84, 203, 363, 364, 380.

building as it is, considered only in itself, it makes worse than wasted every penny ever expended for the purpose of giving the adjoining buildings architectural dignity or value.

Of course, nobody can imagine that our legislators will ever be influenced by æsthetic considerations. But they might be reached by other considerations. To say nothing of preventing risk to life through earthquake or conflagration in edifices, fireproof too often only in name, some law should be found to prevent robbing one's near neighbors of sunshine and health, as well as one's distant neighbors of real estate values, which a less grasping appropriation of fortunately situated lots would distribute more generally. In fact, the conditions are such that it would not be strange if, at no distant date, the practical and moral aspects of the subject, aside from the æsthetic, would so appeal to public sentiment that offices and hotels in these high buildings would be as much avoided as now they are sought.

It may be urged that high building cannot be prevented in this country, because it is free. But it is not free—for those who interfere with even the convenience, not to say the rights, of others. There is a law in certain states of Germany that no façade can be higher than the width of the street which it faces. Some such law passed in our own States, in order to secure health and safety, would do this not only, but probably attain also the desired æsthetic end. Architects, assured that no building could exceed a certain height, would be quite certain to prevent other buildings from overtopping their own, by seeing that theirs were carried up to the exact limits of possibility. Were this done, our streets would have a uniform sky-line. Meantime, while legislation falters, why should not

the æsthetic considerations influence individuals? Why should not those interested in the development of new streets have introduced into the deeds sold a prescribed height beyond which façades should not be carried? Or, to enlarge the question, and this in a practical direction, why should not trustees of institutions of learning pass laws prescribing not only the sky-line, but the color and style of new buildings erected by benefactors. As for the style, that is the best which, while securing unity, admits

FIG. 204.—WALKER MUSEUM, CHICAGO UNIVERSITY.—"COSMOPOLITAN" MAGAZINE.

See pages 369, 380.

of the greatest variety both in appearance and also in costliness. Columbia College has started out with an expensive library, in the Græco-Roman style, to be constructed, of course, as must everything in this style, of cut and polished stone. The question is whether it will be easy to erect museums, recitation-halls, and possibly dormitories of various shapes, that will conform to this style; and whether, if this will be easy, there will be money enough for the purpose; or, if so, whether it will

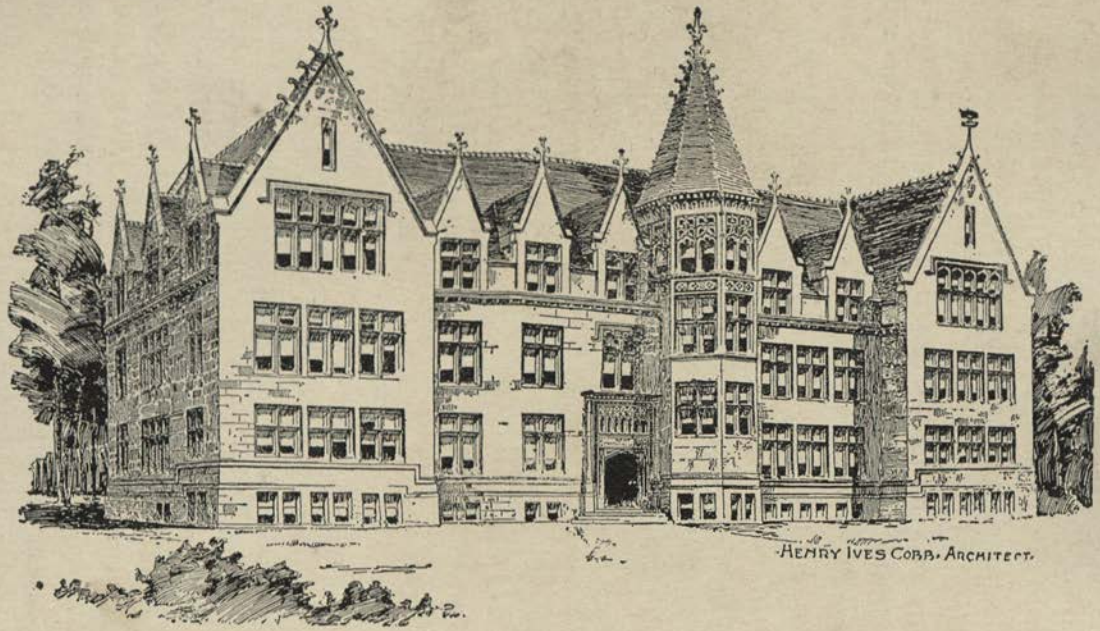


FIG. 205.—RYERSON PHYSICAL LABORATORY, CHICAGO UNIVERSITY.—"COSMOPOLITAN" MAGAZINE.

See pages 369, 380.

be wisely expended for such a purpose. It certainly seems, at first thought, that the authorities of the University of Chicago have adopted a wiser course. Their buildings are in the Gothic style. One peculiarity of this style is that it can be varied almost infinitely. A number of buildings can be constructed either with towers or without them, and yet, when grouped together, produce an effect of unity. Without approving of all the architectural features in the two figures, the reader may recognize the truth of this statement by comparing and contrasting the buildings in Figs. 204, page 367, and 205, page 368. Notice, also, possible modifications of the same style — though, of course, when a roof is visible in one building, it should be visible in all—in Fig. 206, page 369; Fig. 198, page 351; and Fig. 202, page 363. Another peculiarity of the style is that it admits of equal variety in expense. The stone is generally uncut, but any amount of carving is admissible in the elaboration of details. Observe the tower in Fig. 206, page 369. As a result, a dormitory, costing only fifty thousand dollars, may stand at the side of a chapel costing five hundred thousand, and yet both buildings contribute equally to the harmony of the whole series of buildings.

FIG. 206.
PUBLIC SCHOOLS, OXFORD, ENGLAND.
See pages 360, 369, 380.

These remarks have not been wholly in the nature of a digression. After what has been said of the importance of

uniformity in color and style, the reader will more fully realize the importance of uniformity in the sky-line; and why, therefore, the desire to secure this plays so prominent a part in the shapes that have been designed for roofs. Evidently in the Boulevard of St. Michael, Paris, Fig. 192, page 345, this desire in connection with a desire to render some part of the roof visible, notwithstanding its generally flat character, accounts for the method of construction. It is worth noticing, however, that the visible roof does not pass into a flat roof until the curve in which the roof starts from the perpendicular naturally bends toward the horizontal. After this, for the roof to continue in a horizontal direction, does not involve any great degree of misrepresentation. Unfortunately, the same cannot be affirmed of the American imitation of this arrangement. This imitation seems to have arisen from a desire to avoid having the roof so

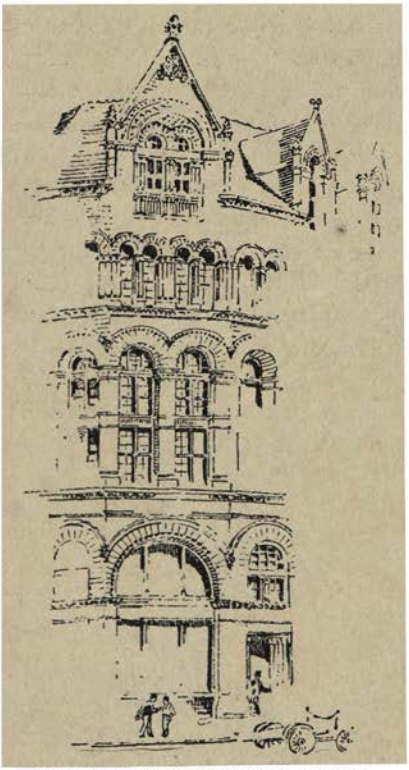
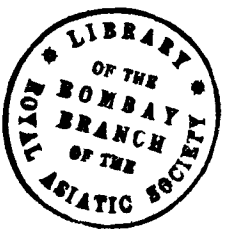


FIG. 207.—BEDFORD BUILDING, BOSTON.
See pages 323, 371, 380.

high as to necessitate putting an attic into it, as is done in the Parisian original. Possibly an analogous result could be attained by making the roof bend backward more rapidly. But this would give an arch less symmetrical in form than in the Paris roof, and, for this reason, less beautiful. The Bedford building, Fig. 207, page 370, affords a good example of the American mansard. As will be perceived, it does not at all conceal, as does the Paris roof, the fact that the roof is really flat. A less satisfactory mansard roof will be observed over the central part of the building of the University of Pennsylvania, Fig. 179, page 329. Besides being out of keeping with the style of the rest of the building, the whole character of the construction and surroundings of this square arrangement, as in the wooden pinnacles at its corners, shows it to be a cheap substitute for that which, to accord with the uses of the building, should have produced an effect diametrically the opposite.



CHAPTER XX.

ARCHITECTURAL REPRESENTATION OF MATERIAL SURROUNDINGS.

Object of the Present Chapter—Architecture Involves more than Natural Arrangements for Shelter—But is Developed from these—Rendered more Representative—Primitive Huts as Developed into the Temples on the Acropolis—Primitive Tents as Developed into the Oriental Temples—Primitive Rounded and Pointed Arches, Domes, and Spires—This Imitation sometimes Conscious, sometimes Unconscious—Development of Styles Based on Straight Lines, Curves, and Angles—Criticism on the Views of Helmholtz—The Principles of Correspondence as Fulfilled in Architectural Forms—Suggestive and Imitative Representation as Fulfilled in it and in other Arts—Architectural Examples.

IN Chapter XIX., we were considering in what sense architecture represents mind, *i. e.*, the thoughts and emotions, which have their sources in man in general and in the artist in particular. We have still to consider how it represents external appearances, traceable, in their final analysis, to the material appearances of nature by which the mind or the man is surrounded. As shown in Chapter VII. of "Art in Theory," and as said many times in this book, all the arts owe their existence to the play of imagination when elaborating methods of vocal and manual expression, which, previously to their artistic development, have reached a certain stage of non-artistic, and, in this sense, natural development. Poetry, for instance, is de-

veloped from unsustained forms of sound, as in the articulations of language; music from sustained forms of sound as in intonations; painting and sculpture from manual expression, as in drawing, coloring, or carving; and architecture from the same, as in constructing.

This fact, as applied to the latter art, is sometimes overlooked. While no one confounds poetry, painting, or sculpture with the early inartistic form of expression from which it is developed, there are many who suppose that everything used for the purpose of shelter, even the rudest hut of the savage, is an exemplification of architecture. But one might as well suppose everything of the nature of language to be an exemplification of poetry. It has a relation to poetry. It contains the germs from which the art grows; but this is all. So with the hut of the savage, and with many constructions more pretentious. An ordinary woodshed has no more to do with architecture than the cry of our nursery, the talk of our kitchen, the sign of our barber, or the rock of our curbstone has to do with the respective art to which it seems allied, whether music, poetry, painting, or sculpture.

This being understood, it will be perceived that just as in the essays upon "Poetry as a Representative Art," and "Music as a Representative Art," the artistic methods of the arts discussed were derived from the previous natural, in the sense of non-artistic, uses of language and intonation, so here it is logical to hold that the artistic methods of architecture must be derived from the natural, in the sense of non-artistic, methods of building; in other words, from these as developed by the natural as distinguished from the artistic man.

Natural construction, like natural language, is always representative. This alone is a reason why artistic con-

struction should continue to be the same. A cave discovered and used by a savage may be a natural dwelling; but it is not even a natural product of human construction until after he has begun to change it in order to make it more suitable for his uses. Notice, too, that when he has so changed it he has made his product representative of his ideas and purposes, which fact, as we have found in

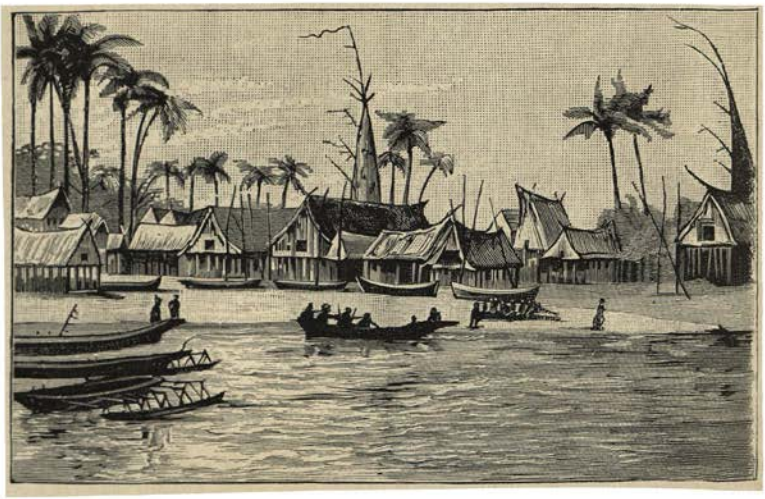


FIG. 208.—CHIEFS' HOUSES, KEREPUNA, AUSTRALIA.
See pages 80, 375, 376, 378, 386, 397.

Chapter XIX., causes it to manifest one important condition necessary to an artistic result, *i. e.*, to represent the man. Observe again, too, that, very soon after beginning to make changes in the cave, he is apt to go beyond the requirements of utility, and to make them for the purpose of introducing ornamentation; moreover, that this ornamentation is apt to assume the appearance of something

that he has seen elsewhere; and that, when this is the case, it represents not only himself, but something that is outside of himself, something that belongs to the visible universe; something which, when making a distinction between it and mind, we are accustomed to term nature. In these circumstances, both the mental and material conditions are present, which, as maintained throughout these essays, are necessary to the production of art of the

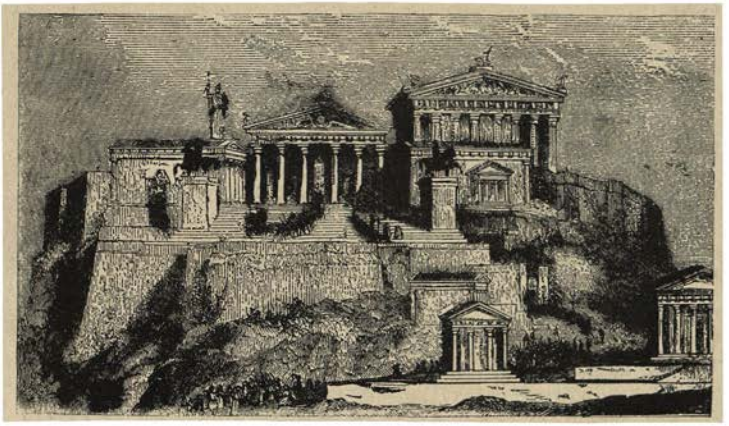


FIG. 209.—RESTORATION OF THE WEST END OF THE ACROPOLIS, ATHENS.

See pages 376, 380, 386, 387, 397, 407.

highest quality; and it is then, too, as shown in the carved face of the cave in Fig. 171, page 315, and in the carved pillars of the cave's interior in Fig. 172, page 317, and as explained on page 316, that we have the beginnings of the art of architecture.

But caves are not the only natural forms of shelter which can be rendered artistic. Fig. 208, page 374, shows us a natural way of using the trunks of trees with coverings so

as to shield from sunshine and shed water. Fig. 209, page 375, shows us what is evidently only an artistic development of the same forms. Is it necessary to argue that the motive which, as in Figs. 171 and 172, caused men to carve the stone of the caves without or within, so as to represent wooden beams and pillars, was exactly the same as that which caused the architects of artistic buildings like those in Fig. 209 to represent in stone the wooden methods of construction, such as are seen in Fig. 208?

FIG. 210.—TENT OF EASTERN ASIA.
See pages 376, 386.

Look, again, at the shape of the tent in Fig. 210, page 376; it is taken from Cassell's "Across Thibet," and represents the tent ordinarily used all over Asia to-day. Now look at the shape of the roofs in Fig. 211, page 377. This shape will be found repeated in every temple and palace in eastern Asia, almost without exception. Moreover, whenever we visit palaces or temples in that part of the world, we find, as a rule, not one large structure, but, instead of this, in one large enclosure, dozens and scores of structures, none of them of superlative size. This fact

of itself, but especially in connection with the sagging roofs, would be enough to enable us to detect the source from which these forms have developed, even aside from the description in the Old Testament of the reproduction not only, but the representation of the tent-tabernacle of the wilderness in the elaborate permanent temple at Jerusalem.

FIG. 211.—WINTER PALACE, PEKIN.

See pages 358, 376, 380, 386.

So we could probably go through all of our present styles of architecture and detect in them no more than legitimate artistic developments of methods that might be termed non-artistic or natural. Two primitive roof-forms have been noticed. Figs. 212, page 379, and 213, page 381, will show us primitive domes—the first in the

form of a rounded arch, and the second in that of a pointed arch. Notice, too, the arched doorway in Fig. 213. Figs. 214, page 383, and 208, page 374, again will show us primitive turrets or spires. The former have exactly the same shape, too, as some in Figs. 184, page 335, and 195, page 348.

It is not meant to be maintained here that all architects who first used the dome or pointed spire, or windows with round or pointed arches, did so because they had personally seen among savage tribes similar constructions, which they consciously imitated. The same cause that, among the savages, would operate to make those using cheap material build with a round or pointed arch, would operate also among those using costly material. All that it is intended to maintain, is, that these several forms are first adopted in order to meet certain requirements of nature; and afterwards are imitated and ornamentally developed in order to meet artistic requirements.

In his "Sensations of Sound," while discussing a question of comparative æsthetics, Helmholtz gives a very clear statement of the commonly accepted view which attributes Greek architecture alone to the actual imitation of wooden buildings. Afterwards, according to him, the other styles were developed from this style. His statement is worth quoting. "The whole analysis and arrangement of their decorations," he says, referring to the Greeks, "clearly show that it was their intention to imitate wooden constructions. The verticality of the supporting columns, the general horizontality of the supported beam forced them to arrange all the subordinate parts for the great majority of cases in vertical and horizontal lines.[1] The

[1] Those not familiar with the styles of architecture to which reference is made in this passage and elsewhere in this book will find illustrations of Greek architecture (based on the *horizontal line*) of the Doric order in Figs.

FIG. 212.—HOTTENTOT KRALL.

See pages 80, 377, 384.

purposes of Greek worship, which performed its principal functions in the open air, were satisfied by erections of this kind, in which the internal spaces were necessarily limited by the length of the stone or wooden beams which could be employed. The old Italians (Etruscans), on the other hand, discovered the principle of the arch composed of wedge-shaped stones. This discovery rendered it possible to cover in much more extensive build-

14, page 36; 209, page 375; and 215, page 387. The main difference between this and the Ionic order is sufficiently indicated by the capital in Fig. 216, page 388, and between it and the Corinthian order in the capitals in Figs. 11, page 34, and 226, page 394. The composite order had a capital similar to the Corinthian, but crowned at the top with an Ionic scroll (Fig. 216, page 388). Roman architecture, which added to Greek forms *the round arch*, is well represented by the building at the left of Fig. 203, page 365, its central entrance being an exact reproduction of a Roman triumphal arch. The Græco-Roman style included both pillars and entablatures with arched forms as in Figs. 12, page 35, and 199, page 354. The last two styles are often included in what is termed the Renaissance, by which is indicated the result of the fifteenth century's revival mainly of Roman architecture, though it does not necessarily, as in Fig. 196, page 349, involve the use of an arch. See Figs. 173, page 319; 176, page 326; 192, page 345; and 201, page 361. The Romanesque style has the round arch, but seldom the entablature. Its Byzantine form may be seen in Figs. 15, page 37, and 40, page 81. Its Norman form is approximated in Figs. 184, page 335, and 207, page 370. See also Figs. 218, page 390; 219, page 391; and 25, page 53. The Gothic, based on *the pointed arch* may be seen in its earlier pointed form in Figs. 41, page 81, and 3, page 24; and in its later decorated form in Figs. 43, page 84, 144, page 205, and 220, page 392. A modern development of this may be noticed in Fig. 24, page 52, while one building in Fig. 190, page 343, and the tower in Fig. 193, page 346, show characteristics both of the pointed and later styles. Perpendicular Gothic, developed, soon, into the florid and also Tudor, is well illustrated in Fig. 234, page 404, and by the window only in Fig. 43, page 84. Notice also Figs. 13, page 36; 198, page 351; and 206, page, 369. The more debased Elizabethan style used mainly in non-ecclesiastical buildings, may be seen in Fig. 197, page 350; and modern Gothic in Figs. 204, page 367, and 205, page 368. The Davidian Indian style is illustrated in Figs. 232, page 400, and 233, page 401, and the most characteristic phase of the Oriental in Fig. 211, page 377.

ings with arched roofs than the Greeks could do with their wooden beams. Among these arched buildings the halls of justice (basilicas) became important, as is well

FIG. 213.—KAFFIR STATION, AFRICA.
See pages 377, 378, 384.

known, for the subsequent development of architecture. The arched roof made the circular arch the chief principle in division and decoration for Roman (Byzantine) art. The columns, pressed by heavy weights, were transformed

into pillars on which, after the style was fully developed, columns merely appeared in diminished forms, half sunk in the mass of the pillar, as merely decorative articulations and as the downward continuations of the ribs of the arches, which radiated towards the ceiling from the upper end of the pillar. In the arch, the wedge-shaped stones press against each other, but, as they all press inwards, each one prevents the other from falling. The most powerful and most dangerous degree of pressure is exerted by the stones in the horizontal parts of the arch, where they have either no support, or no obliquely placed support, and are prevented from falling solely by the greater thickness of their upper extremities. In very large arches, the horizontal middle portion is consequently the most dangerous, and would be precipitated by the slightest yielding of the materials. As then mediæval ecclesiastical structures assumed continually larger dimensions, the idea occurred of leaving out the middle horizontal part of the arch altogether and of making the sides ascend with moderate obliquity, until they met in a pointed arch. From thenceforward, the pointed arch became the dominant principle. The building was divided into sections externally by the projecting buttresses. These and the omnipresent pointed arch made the outlines hard, and the churches became enormously high. But both characters suited the vigorous minds of the northern nations, and, perhaps, the very hardness of the forms, thoroughly subdued by that marvellous consistency which runs through the varied magnificence of form in a Gothic cathedral, served to heighten the impression of immensity and power. We see then how the technical discoveries which were associated with the problems as they rose successively created three entirely distinct principles of style—the

FIG 214.—NEGRO HUTS, KOUROUNDING KOTO, SOUDAN.

See pages 80, 378, 384.

horizontal line, the circular arch, and the pointed arch, and how, at each new change in the main plan of construction, all the subordinate individualities down to the smallest decorations were altered accordingly; and hence how the individual rules of construction can only be comprehended from the general principles of construction."

Any one inclined to accept this statement, need but glance again at Figs. 212, page 379; 213, page 381, and 214, page 383, to recognize that the same argument which makes Greek architecture a development of primitive hut-forms, could make Romanesque and Gothic architecture the same. Moreover, it is not true, historically, that, even as used among the civilized, the pointed arch first appears in the mediæval ecclesiastical structures. According to Gwilt's "Encyclopædia of Architecture," "The pointed arch is used throughout the mosque erected by the Çalif Walid at Jerusalem in the year 87, or about A.D. 705." He states also that "the aqueducts that supplied Constantinople with water, which were commenced under Constantine immediately after the founding of the city, but completed under Valens, A.D. 364 and 378, exhibit pointed arches." In addition to this it may be said that, even were all architectural styles except the Greek developed from previously existing styles, one reason for this would be that the moment a style of architecture comes into general use, it becomes one of the surrounding appearances, influencing the man who sees it. At the same time, it could seldom be the only appearance surrounding him, or exerting an influence upon him; and any architect who saw, side by side, a Greek temple and a hut with a rounded roof, might, according to the degree of his originality, be inclined to imitate the latter. Always, however, were he acquainted with the methods of Greek

construction, he would construct that which he imitated, though a form that was not Greek, according to the Greek methods. There is this much truth, therefore, in the statement of Helmholtz. All architectural forms are developments of previously existing forms. But while some of these are architectural, others of them are of that primitive character which we have termed natural.

In accordance, now, with everything that has been said in this volume, let us notice the order of the development of the representation of appearances in architecture as fulfilling the principles of correspondence by way, first, of association or suggestion; and, later, of comparison or imitation. On page 8 it was said that in association things are connected that have a like *general* effect, though they may not seem alike in their details; whereas in comparison things are connected that in their details as well as in their general effects seem alike. In strict conformity with this order of representative development, notice that in poetry, music, painting, and sculpture, the first effect which the primitive artist tries to reproduce is a *general outline* of something, either of a story, or of a method of intonation, as in a rude ballad or chant; or of a figure of a man or a beast, as in a rude sketch by pencil or chisel. Notice, too, that even when the desire for ornamentation is quite strong, he ornaments, at first, only the very apparent factors or features, as in measures and verses, or in colors and shadings. The early poet does not usually give that careful attention to minutiæ, which in more civilized times causes a distinctively poetic style, and he never has what is termed a flowery style, by which, as usually interpreted, is meant a style excessively full of comparisons. Nor does the earlier musician make any attempt at the significant accompaniments and florid variations which come

later; nor does the earlier painter or sculptor imitate in color or line the less obvious appearances of surfaces and textures. So with architects. The Assyrian, Indian, Egyptian, Grecian, and Gothic builders, all started with representation merely in *general effects*, such, for instance, as justify us in saying that the forms in Fig. 209, page 375, resemble those in Fig. 208, page 374, or the forms in Fig. 211, page 377, resemble those in Fig. 210, page 376. Even long after pillars were given capitals and care was taken with the arrangements of entablatures and pediments, no ornamentation appeared except in the way of giving additional emphasis to their necessary characteristics, as in Fig. 14, page 36. But just as the straight onward flow of poetic style begins, after it passes the ballad period, to be filled up with allusions, mainly associative and suggestive, and after that with imitative descriptions of flowers, plants, streams, mountains, and the various men and living creatures that can be seen surrounding one, so the straight onward lines of architectural style, when it gets beyond the archaic period, begin to be filled up with, first, associative suggestions, and after that with careful imitations of the appearances of nature. As Samson says, in his "Elements of Art Criticism," "In Egyptian structures, temples, walls, and pylons, as well as obelisks and pyramids, slope inward from the base to the summit, according to the law of strength suggested by nature in the trunks of trees, jutting rocks, and mountain peaks." But in later developments of these columns "the French savans of A.D. 1798 detected three classes, and named them after the object in nature from which their capitals were modelled: first, the lotus-bud capital, copied from the closed bud of the water lily; second, the lotus-flower capital, or open lotus; and third, the Osiride capital,

presenting a four-faced head of the god Osiris. Some of the capitals, again, used in shafts in the temple at Jerusalem, were formed of lily work and rows of pomegranates. Callimachus is said to have had the shape of the capital used on the shafts of the Corinthian order"—a late development again—(see Fig. 226, page 394) "suggested to him by seeing the shape assumed by an acanthus growing up over a basket that happened to be placed over it."

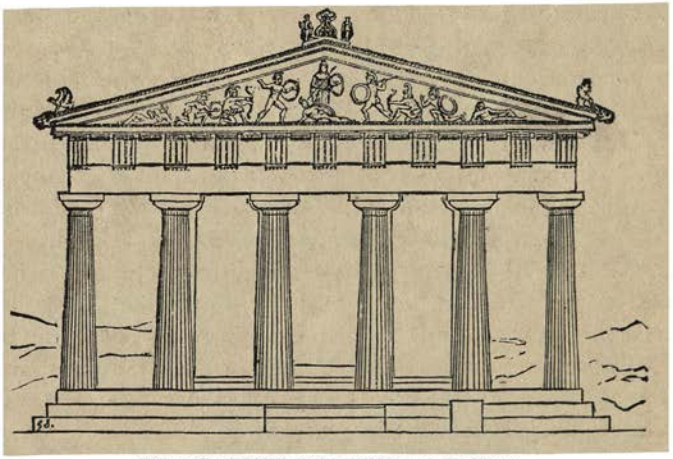


FIG. 215.—GREEK DORIC TEMPLE OF ÆGINA.
See pages 380, 389, 396.

As illustrating the order in which these different methods of ornamentation appear, notice—what without illustration the mind might recognize to be necessarily true—that only general outlines are at first represented, as in the framework on the outside of the cave, Fig. 171, page 315, and even in the arrangements of the front of the temples in Fig. 209, page 375, and 14, page 36. Observe, too, the unornamented character of the pillars and pedi-

ment of the latter, as well as in the example of Romanesque pillars in Fig. 218, page 390, and of Gothic pillars in Fig. 43, page 84.

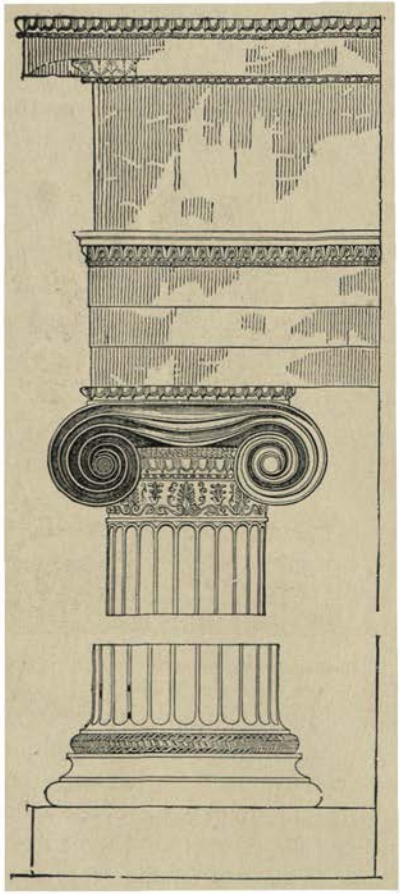


FIG. 216.—GREEK IONIC ORDER.
See pages 380, 389.

Very soon, however, the imagination begins to play with the details of form. The first result of this is to produce a style of ornamentation which is termed conventional because, when once introduced, it becomes the fashion, and is adopted as decisively as if by vote in convention. In this style from the very start, however, there are indications of certain vague suggestions derived from the general, though not specific, appearances of nature. But, at the same time, the human desire for rational regularity (see page 94) asserts itself so strongly that the results are termed geometric rather than imitative. Notice such conventional forms, slightly suggestive of outlines in tropical plants, in the pillars of the Indian cave at Elephanta,

Fig. 172, page 317, pillars, the general appearance of which, as all familiar with the subject know, could be duplicated, if necessary, from remains in Assyria and Egypt. More important for us to notice is the ornamentation of the Greek Ionic pillar (Fig. 216, page 388), which was developed later than that of the Doric order as in Fig. 215, page 387. Observe, too, the conventional antefix in marble over the centre of the front pediment of the Greek Doric temple of Ægina, Fig. 215, page 387, but especially in Fig. 217, page 389. Almost every Doric temple, however, illustrates a fact that must always be borne in mind when studying architecture. This is that a style continues to be the same for years after certain tendencies derived from it have been developed so far in some buildings that it might be supposed that they would have exerted an influence upon all buildings. This temple of Ægina had features not immediately used elsewhere. Unlike the later Theseum (Fig. 14, page 36), over whose eaves were forms made in the style of Fig. 217, it had partly imitative forms (Fig. 222, page 393); and unlike many Doric temples, it contained wholly imitative statues in the pediment (Fig. 215, page 387). But to return to the illustrations of conventional forms, notice

FIG. 217.—ANTEFIX OF MARBLE, TEMPLE OF ÆGINA.

See pages 389, 398.

the capitals on the Romanesque pillars on each side of the doorway in Fig. 218, page 390, and on the small pillars in the partly Romanesque interior in Fig. 219, page 391; also on the pillars in the pointed interior, Fig. 3, page 24, as well as the whole combination of forms in Fig. 220, page 392,

FIG. 218.—DOORWAY TROITZKA MONASTERY, RUSSIA.
See pages 380, 388, 390.

representing an interior in that early decorated Gothic style which preceded the extensive use of such details as are illustrated in Fig. 230, page 395, and Fig. 231, page 396.

A little later, as originally used, though often, as found now, in the same buildings with these conventional forms,

which long continue to be in vogue, come forms that are distinctly imitative. Yet, at first, the imitation is only partial. That is, parts of certain natural forms are copied, but they are not put together as in nature. This fact is

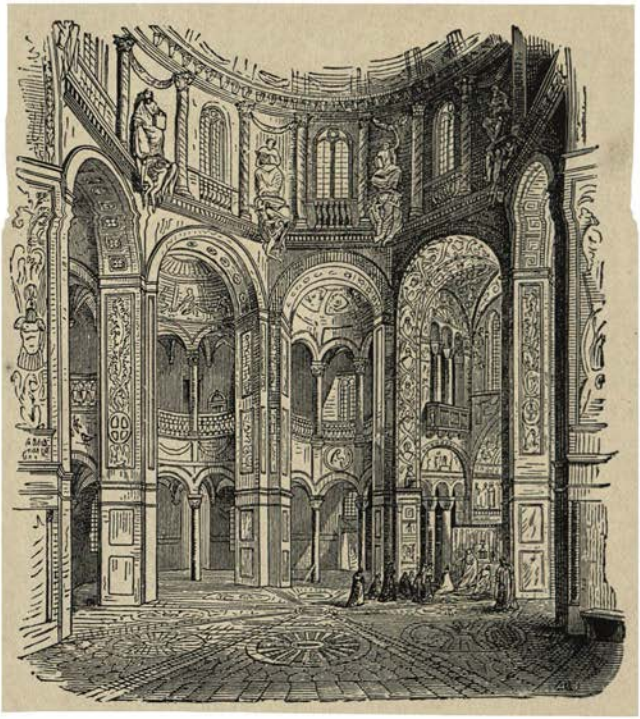


FIG. 219.—INTERIOR OF SAN VITALE, RAVENNA.

See pages 380, 390.

particularly evident in the representations of living figures; and the principle manifested is so universally exemplified among the architects of all civilized countries,

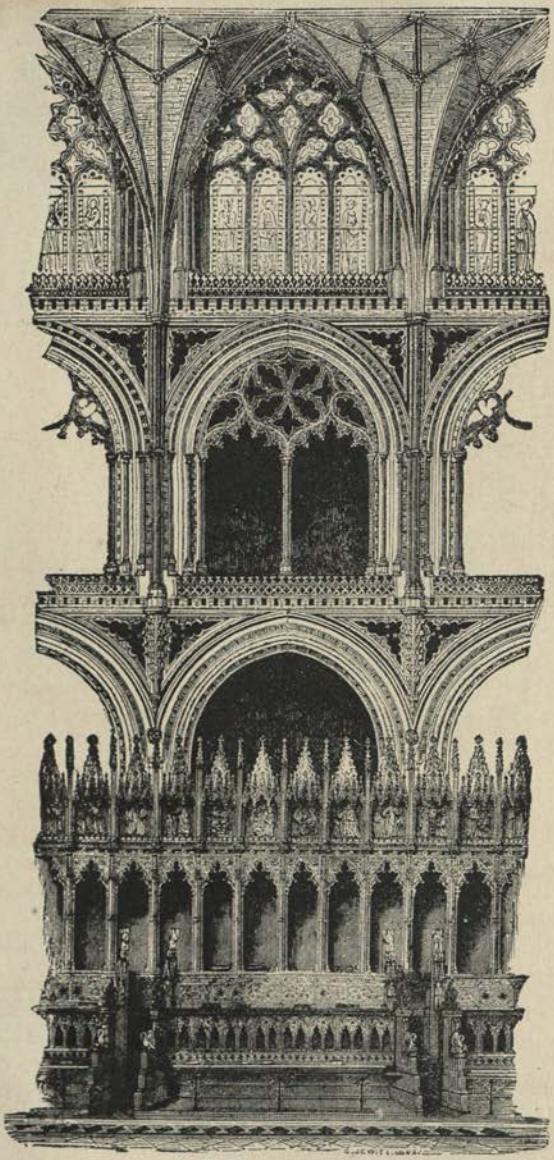


FIG. 220.—CHOIR OF ELY CATHEDRAL, ENGLAND.

See pages 78, 380, 390, 405.

while the particular applications of the principle are so different that it seems as if it can only be ascribed to a

FIG. 221.—PORTAL AT PERSEPOLIS, PERSIA.

See pages 393, 398.

FIG. 222.—ACROTERIUM AND GUTTER, TEMPLE OF ÆGINA.

See pages 389, 393, 398.

natural tendency invariably characterizing a certain stage of architectural development. Notice the combination of the man, four-footed beast, and bird in the illustration from Persian architecture in Fig. 221, page 393; of the four-footed beast and bird in the Egyptian, Fig. 223, page 393, of the same in the Greek, Fig. 222, page 393; and of the same in the gargoyle, which, as produced in Cologne Cathedral, is imitated from a

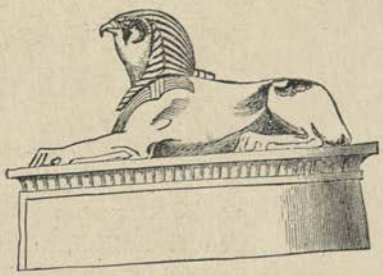


FIG. 223.—EGYPTIAN HIERACO SPHINX.

See pages 393, 398.

style common in the earlier Gothic architecture, in Fig. 224, page 394. Some, whose attention has never been directed

FIG. 224.—GARGOYLE FROM CATHEDRAL, COLOGNE.
See pages 393, 394, 398.

FIG. 225.—CAPITAL FROM A TOMB AT PERSEPOLIS, PERSIA.
See pages 394, 398.

to the subject, will probably be surprised to find such forms in Greek architecture. Yet there they are. Still later than these partially imitated figures, though now, of course, often found in the same buildings with them, come those that are fully imitated. On the border line

FIG. 226.—GREEK CORINTHIAN CAPITAL.
See pages 380, 387, 396.

FIG. 227.—TEMPLE AT IPSAMBOOL, EGYPT.
See pages 396, 398.

between the two, we can place the Persian capital in Fig. 225, page 394, the Egyptian lotus-leaf capital in Fig. 10,

FIG. 228.—CAPITAL AT DENDERAH, EGYPT.

See pages 396, 398.

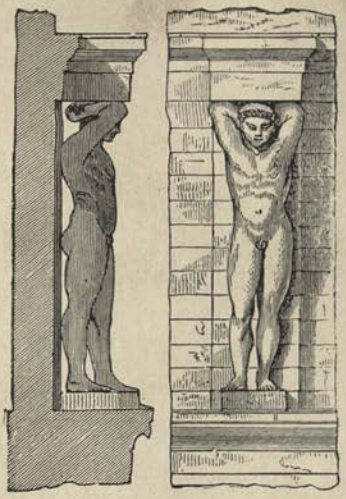


FIG. 229.—GIANTS, TEMPLE OF AGRIGENTUM.

See pages 396, 398.

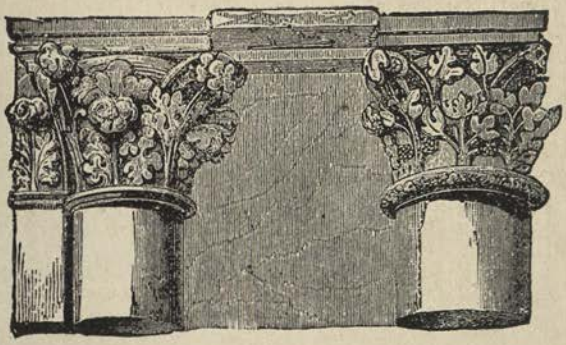


FIG. 230.—CAPITAL FROM CATHEDRAL AT RHEIMS, FRANCE.

See pages 390, 396, 398.

page 34, and the Greek Corinthian capital, developed later than either the Doric or Ionic, in Fig. 226, page 394. As fully exemplifying this tendency, notice the Egyptian temple at Ipsambool, Fig. 227, page 394, which might be paralleled by examples from India and Assyria; the later Egyptian capital from Denderah, Fig. 228, page 395; the giants from the Greek temple of Zeus at Agrigentum, Fig. 229, page 395, to which might be added the well-known caryatides in the Erechtheum at Athens, not to speak of the figures in pediments, and entablatures, as illustrated in Figs. 148, page 223, and 215, page 387; and, finally, the method of dealing with forms, which we find in the later decorated Gothic, as in the capital and the corbel from the cathedral at Rheims, in Fig. 230, page 395, and Fig. 231, page 396.

FIG. 231.—CORBEL FROM CATHEDRAL AT RHEIMS, FRANCE.
See pages 38, 390, 396, 398.

CHAPTER XXI.

ARCHITECTURAL REPRESENTATION OF MATERIAL SURROUNDINGS CONTINUED.

The Order of Representative Development in Architecture—Styles Imitating Appearances in Nature—Testimony of Facts—Applied to Interiors and Exteriors—Developments of the Imitative in the other Arts—Possibilities of its Development in Architecture——New Uses of Metals—The Development of the Tendency might not Improve the Art—Would Necessitate the Exercise of Genius—What are Valid Arguments against such Developments—Sincerity in the Use of Material, Natural Woods, etc.—Use of Material Natural to a Locality—Conclusion.

AS shown in Chapter XX., artistic representation in architecture begins by reproducing in a comparatively imperishable material, constructions previously erected in a perishable one. This representation is made accurate, if possible, as in the framework in Fig. 171, page 315. But often the very character of the differences involved makes accuracy infeasible if not impossible. The Greek temples in Fig. 209, page 375, reproduce such huts as are in Fig. 208, page 374, but only suggestively, in general outline. Very soon, however, as we have found, and very naturally too, the representative tendency thus started into activity, manifests its presence by leading, usually in the way of ornamentation, to the reproduction of other surrounding objects, objects not produced by men. At first, these objects are only suggested,

so that, in seeing them, one merely associates them with the natural forms which they resemble. In this way, the leaves of certain flowers are suggested, as by the capitals in Figs. 10, page 34; 11, page 34; and the antefix in Fig. 217, page 389. So too actual living animals are suggested, as by the combinations in Figs. 221, page 393; 222, page 393; 223, page 393; 224, page 394; and 225 page 394. Later, however, these represented objects are actually imitated from objects seen in nature, as in Figs. 227, page 394; 228, page 395; 229, page 395; 230, page 395; and 231, page 396.

If now we suppose that the styles of buildings considered as wholes develop in an analogous way, it will lead us to infer that after a style has been determined by the appearances of huts constructed by the non-artistic man, there will come a time when it will be determined by appearances not constructed by men but perceived in nature; and that these appearances will be represented at first suggestively by way of association, and later imitatively by way of comparison.

Can this inference thus logically deducible from the analogies of the other arts be confirmed by facts? Why can it not? The simple truth seems to be that the changes from the style of building determined by the use of the horizontal line, the circular arch, and the pointed arch, were not caused merely by the necessities of construction, as declared by Helmholtz on page 378, nor merely by the appearances of straight, round, or pointed forms in cheaper human constructions as intimated on page 384, but also by the appearances of similar forms in nature. The exact effect given to the nave of a Gothic cathedral cannot be attributable merely to a development of methods of construction, nor to an imitation of cheaper buildings. It

is an indisputable fact that an avenue of trees with bending branches often suggests to one who has seen such a nave a Gothic nave. Compare Fig. 44, page 85, with Fig. 43, page 84. If it does so in our age to the ordinary observer, why could it not have done so in the middle ages to the first Gothic builder? Those who deny that it could do this, or who ridicule, as they do, the statement that it might, would have difficulty in making most men believe that they could recognize any conclusion whatever attainable as a result of only logic or insight. Notice also Fig. 9, page 33.

The representation causing us to connect the effect of a cathedral nave with that of an avenue of trees is of the same character as that which has been shown to be true of any representation of natural objects when first attempted. We merely associate the nave with the natural appearances which it merely suggests. It does not compare with these in the sense of being an exact imitation. The same principle may be exemplified, too, as applied to exteriors. Notice the general form of the temple in Fig. 232, page 400, and more minutely the details of the same style as enlarged in Fig. 233, page 401. Then look at the general effect of the Tissington spires represented in Fig. 32, page 67, and in connection with doing so, recall, as related to the second figure, the detailed effects of rocks stratified in layers with which all of us who have ever seen cliffs or precipices cannot fail to be familiar. After comparing the art-products with such appearances of nature, is it difficult for any one who understands the natural workings of the mind to perceive a subtle connection between the two?

Now, with this thought in mind, turning again to the other arts, notice that an increase in the imitation of

natural appearances in the details has a tendency to increase the same in the treatment determining the general outlines also. As a rule the general plot, *i. e.*,

FIG. 232.—TEMPLE AT BUDDHA GAYA INDIA.
See pages 380, 399.

the general outline, of a ballad has to do mainly with mere events; the plot of an epic, which comes later.

FIG. 233.—TEMPLE AT MUKTESWARA, INDIA.

See pages 380, 399.

with details concerning the persons engaged in these events; the plot of a drama, which comes still later, with additional details representing the characters of these persons; and the plot of a descriptive—as distinguished from a narrative—poem, which comes yet more late, with added details representing their natural surroundings. So in music. Only in later compositions, as in the oratorios of Haydn, or the operas of Wagner, is the plot unfolded by so analogous or imitative a use of harmony that the melody is reduced to *recitative*. So too in painting and sculpture. A reproduction of the general outlines of form, as by the painters of the middle ages, was once considered all that was necessary. Now there are schools of criticism whose sole applied test of excellence seems to be accuracy in the delineation of the minutiæ of appearance.

Taken together, the facts indicated in the last few pages cannot fail to suggest to a logical mind the question whether, as in the cases of the other arts, there may not be developed in architecture, too, a style in which this representation, as applied not only to details but to general effects shall be more imitative than at present. This question was asked in "Art in Theory"; and, as it seemed to present a new idea to certain critics, it was only what was to be expected from human nature, perhaps, for them to display a certain lack of integrity, intelligence, and insight in the way in which they greeted it. The lack of integrity was shown in the question's being quoted out of its connection, in such a way as to be made to appear an expression of strong affirmation and advocacy, whereas it was merely, as it is here, an inquiry suggested by way of logical inference. The lack of intelligence was shown in the ignorance displayed of the way in which all architec-

ture starts, as indicated on page 316, as well as the way in which it develops, as indicated on page 397; and the lack of insight was shown in the failure to recall the beauty imparted to almost any natural appearance whatever, when reproduced in material like marble or bronze, which is more costly and difficult to work. If a man, for instance, who has seen the exquisite effects produced by marble carvings of bark and leaves, will look at Fig. 44, page 85, which is a reproduction of a scene not prepared for this volume, he will recognize that it is by no means an idle question to inquire whether some future architect may not conceive that columns and ceilings imitating these tree-trunks and leaves may be made more artistically beautiful than any possible modification of our present Gothic columns or such conventional groinings of the ceiling as may be noticed, for instance, in Fig. 234, page 464. Or look again at Fig. 175, page 325. What would a man be doing who should reproduce effects like this on the exterior of a stone building, but carrying out the first principles of architecture as manifested in the reproduction of the framework in front of the cave represented in Fig. 171, page 315?

Another consideration, too, is important here. Our age is characterized by a far wider use than ever before of metals. What can we find to do with our iron, copper, aluminium, and especially silver, is becoming a very practical question. Now, if bronze be appropriate for the representations of sculpture, why should not metal of some similar character be appropriate for the uses of architecture—not only as suggested on page 330, but still more extensively? Other things considered, who would not prefer to sit in a theatre the galleries and pillars of which in no possible circumstances could be burned?

And who that is acquainted with the possibilities for artistic representation in metal of this character can deny the opportunities afforded by it?

It must be acknowledged, indeed, that, even supposing such attempts in stone or metal could be successful, it does not follow that architecture would necessarily be improved by them. In the estimation of the majority of critics, the ornamental Greek architecture of the Corinthian or composite styles does not rank as high as the plainer and earlier Doric; nor the decorated or the florid Gothic as high as the plainer and earlier pointed style.

FIG. 234.—AISLE OF HENRY VII.'S CHAPEL, WESTMINSTER ABBEY, ENGLAND.

See pages 380, 403, 405.

Compare the latter as in Figs. 41, page 81, and 43, page 84, with the former as in Figs. 144, page 205; 220, page 392; and 234, page 404. It must be acknowledged, too, that massiveness of effect, which is the chief characteristic imparting impressiveness and dignity to very large buildings, necessitates a predominating use of simple forms and straight lines, with which the kind of imitative representation of which we have been speaking might seriously interfere. See pages 66, 76, and 87. But to acknowledge these facts is not to prove inconceivable a method of development which the analogy of the other arts shows to be among the logical possibilities of architecture; nor even to prove that all attempts to carry out these possibilities would be unsuccessful. As applied to smaller buildings, no more minute attention to the details of carving would be needed in order to manifest imitative representation, than can now be seen in the famous Roslyn Chapel of Scotland; and, whether really constructed of metal or not, the galleries of the Grand Opera House of Paris are certainly made to look as if they were.

Of course, it is to be understood that, especially at the beginning of attempts of the kind indicated, it would require superlative ability, probably genius of the highest order, to produce anything that would not appear confused and, in the worst sense of the term, inartistic. But is a genius of the highest order impossible in our day? If not, why might he not make as great advances in architecture as Wagner has made in music, and that, too, in exactly the same direction? Throughout these essays it has been maintained that, under all the arts, are certain principles that successful products need to exemplify. As applied to building, for instance, it is not because the Gothic artist did not mix horizontal with arched coverings

for windows that it should not be done to-day. Our artists should be actuated by a higher motive than imitation. What they should avoid is a violation of the principle exemplified by the Gothic builders, which principle is to put, wherever it is possible, like with like. It was pointed out in Chapter XVII. of "The Genesis of Art-Form" that in strict accordance with this principle, as it is applied in all the other arts, there might be a legitimate style in which, from the lower story up, the acuteness of the arches in each story would be gradually increased; also, that in these days of easy and extensive methods of transportation, there might be a legitimate style, in which, through the use of stones or of other materials of different hues, the effects of harmonious coloring could be produced, even on exterior; and here again other ways are pointed out which, as by a further use of metal and of imitation, through representation, other legitimate styles might be rendered possible.

It is acknowledged that these and other suggestions to encourage architectural methods that like them tend to be conventional, traditional, nor even conservative. But merely because this is the case; the author does not propose to apologize for them. All the suggestions have been in line with the development of this art in accordance with its own germinal nature. That it might require genius to originate a successful practical expression of them, is no argument against them. The only valid arguments that can be urged against any form of criticism must be connected with a proof that it is destructive; or that, if it be the destructive and not constructive, pointing to imitation and not to invention, only to methods of it which latter, it becomes so by invention; or, if to invention; or, if to involve from the first principles of the necessitate a departure from the first principles of the development of them.

art rather than a dev

Before leaving this subject of imitative representation in architecture, it is well to notice one or two other facts. By recurring again to the method of construction in Figs. 171, page 315; 172, page 317; and 209, page 375, it will be recognized that the artistic interest in them is owing to the fact that a material less difficult to work is represented in a material more difficult to work; in other words, that a wooden original is imitated in stone. It is largely because of the skill needed in order to produce the imitation in this latter material, that it fulfils both of the requirements of art, in that it represents equally the artist himself and the external appearance which he recalls. For this reason, this fact of representing a material less difficult to work in material which is more difficult, is usually considered essential to the highest artistic success. While it is deemed appropriate, for instance, to make a stone building represent, as in the case of the Greek temple, noticed on page 376, a wooden building, it is not deemed so to make a wooden building represent a stone one, or to make a wooden balustrade look like a brass one, or stamped paper look like bronze. This conception is the one that has led to the use of the term *sincerity*. The term indicates one's conception that the artist has employed material which really is what it seems to be,—wood, if it seem wood; stone, if it seem stone; iron, if it seem iron. *Sincerity* even discards, at times, the use of paint, on the ground that it conceals the genuine substance. So, too, owing in part also to the intrinsic beauty of the graining of almost any kind of wood, the same principle has led to a method of finishing this so as to reveal its natural character. It is useless to do more than point out that, as illustrated in all these cases, *sincerity* is merely one way of applying the broader general principle that architecture should represent nature.

Another application of the same principle is found in the way in which, not without reason, certain critics insist that in choosing the material for the construction of a building, preference should be given to that which is natural to the district in which the building is to stand. They say, for instance, that in red sandstone districts it should be built of red sandstone; in a gray granite district, of gray granite; or in forests intended to be left in a rustic state, of logs left in a rustic state, somewhat as in Fig. 175, page 325. The idea is that a building thus constructed will appear to be a part of the surrounding landscape, harmonizing with it in color, and, upon a nearer inspection, in material also. There is undoubtedly much in this, as applied to country residences. But, evidently, all the truth that is in it, is there because it involves one more way of making architecture represent nature.

The purpose of this essay is now fulfilled. There are innumerable other ways, of course, which cannot be mentioned here, in which the principle of representation can be applied not only in architecture, but in painting and sculpture. All these ways, however, must, in some regards, conform to the methods here indicated. The important matter is to have the general truth with reference to the subject understood and accepted. In practical life there is little trouble about conduct, in case a man starts with correct moral principles. In art-work there is an almost equal diminution of trouble, in case he starts with correct æsthetic principles.

INDEX.

In a few cases, the subjects below are treated on the pages indicated merely through a reference by number to the figure illustrating them.

Abdomen, as representative, 110, 116, 123, 142, 162; Discomfort in, 142, 162.
Abnormal. See Normal.
Abruptness, 55. See Gradation.
Academic Line *versus* naturalistic, 294–296.
Academy of Music, Philadelphia, 204.
Accent of voice and line, 16, 17, 18, 39, 41, 57, 59. See Light and Shade.
Acceptance as expressed in countenance, 186.
Acropolis, Athens, 375, 376, 380, 386, 387, 397, 407.
Acroterium and Gutter, Ægina, 389, 393, 398.
Activity, represented by length, 108; Lines illustrating, 62, 64, 72, 145. See Motive Temperament.
Adding Insult to Injury, picture, 151, 152, 156, 263.
Adoration of the Magi, picture, 72, 73, 174, 248, 263, 276.
Ægina, Temple of, 380, 387, 389, 393, 396, 398.
Aërial perspective, 206, 307–309.
Æsthetic, 2; effects in buildings, 86, 341, 363, 364, 366.
Æsthetically, 323.
Affectation, Anglo-Saxon, 234.
Africa, Hottentot Krall in, 80, 377, 379, 384; Kaffir Station in, 377, 378, 381, 384; Negro Huts in, 80, 378, 383, 384.
Age of Reformation, 248.
Aggressive movements, 168, 169, 171.
Aggrieved look in countenance, 177.
Agrigentum, Giants of Temple of, 395, 396, 398.
Aim, Elevation of, as represented in outline, 68; determining rank of art-work, 259, 260.
Alexander, 108.
Allegorical, painting, 248, 272, 274; sculpture, 286.
Amazement expressed in countenance, 184.
Ambition expressed in countenance, 173, 174, 186.
American, accent, ix., x.; church, 327, 328, 330, 355; painters, 292; streets, 334, 360, 361, 364–367; type of face, 101.
Amiable suspicion expressed in countenance, 171, 186.
Antefix of Marble, Ægina, 389, 398
Ananias, Death of, picture, 61, 62 77, 79, 136, 137, 140, 145, 147, 156, 158, 161, 167, 170, 177, 178, 226, 287.
Ancient Mariner, The, 244.
Angelo, M., 47, 50, 75, 298, 301, 302.
Angles, 17; representation by, 21, 86–87, 89, 90.
Angular, Representation by, argumentative movements, 62, 134, 135.
Angularity of shape as representative, 55–87, 89.
Animal painting and significance, 262, 263.

Apollo Belvedere, 62, 138, 147, 149, 151, 224, 281; Sauroctonos, 48, 49, 61, 76, 136, 223, 281; Stroganoff, 224.
Appearances, Natural, in Architecture, 2, 32, 78–87, 312–321, 372–408; in art, 2, 4, 6; in metaphor and simile, 243, 244; in painting, 63–78, 226–236, 291–310; in building material for a locality, 408; in colors and dyes, 198; how representing thought, 3, 63–78.
Apprehension represented in color, 207, 208.
Apprehensive, The, expressed in countenance, with astonishment, 179, 185–190; with attention, 173, 175; with grief, 173, 183, 184, 187.
Arch, Arches, 8, 327; representative of nature, 32, 82, 84, 85, 379–384, 398, 399, 403; round and pointed, 378; causing styles, 78, 380–385.
Architectural features, Development of, 52, 318, 319, 323, 333, 344, 360–408.
Architecture and Painting, Lectures on, 86.
Architecture, appealing to emotions, 78, 86, 87; as memorial and monumental, 356, 357; as representative of dignity, 332, 356, 366, 405; of man and nature, 316, 317, 320, 321, 373, 374; of material or natural surroundings, 2, 32, 78–87, 312–321, 372–408; of mind, 28–38, 322–371; of mind and nature, 28–38, 41; of strength or weakness, 25, 26, 42, 52, 54, 355, 405; of thoughts and emotions, 321; begins earlier and develops later than painting and sculpture, 313; cheap ornamentation in, 355, 357, 371; color in, 203–207, 210, 406; compared with music, 28–32, 311–314, 373; contrasted with poetry, painting, and sculpture, 28–33, 311–314, 373; conventional, 388, 406; developed from cave decoration, 315–317; from hut- and tent-building, 373–378; from imitating wood in stone, 315–317, 375, 376, 378, 407, 408; from picturesque and statuesque conception, 314, 316; from requirements of construction, 378–384; fundamental principle in, 406; handling in, 51–54; imitation in, 312–318, 372–378; lines in, 78–87; originality in, 406; rank of styles in, 404, 405; regularity in, 95; representation in, 311–321; representation of lines in, 78–87; shadows in, 52, 54; sky-line in, 362–371; street, 362–371; styles, 78, 367, 379–384; uniformity in color, 363; variety of color, 406. See Corinthian, Davidian, Doric, Egyptian, Gothic, Greco-Roman, Greek, Ionic, Romanesque.
Arms, as bent in gestures, 138, 140; as expressive, 123, 148–164.
Arrangement, 76.
Arrogance as expressed in countenance, 100.
Art, and Nature, different, 257; and writing, separated in Egypt, 221, in Greece, 222.
Art for Art's Sake, the book, 292; the principle, 291.
Art-Idea, book, 282.
Art in Theory, book, iii., v., viii., 1, 3, 10, 11, 13, 23, 26, 30, 101, 215, 216, 217, 228, 237, 240, 245, 288, 291, 314, 317, 354, 356, 372, 402.
Artist as represented, in animal painting, 262, 263; in architecture, 316, 317, 320; in fruit painting, 257; in landscapes, 259–262; in portraits, 264–269; in sculpture, 266, 267; in symbolic painting, 272.
Artist's point of view should be understood, 292.
Art, its Laws and Reasons for them, book, 76, 266.
Arts, as derived from human forms of expression, 23.
Aspiration as represented by upward lines and length of body, 68, 73, 74, 84, 108.

Association, representation by, 4–13, 18, 27, 28, 32, 37, 51, 214, 385, 386, 388, 398, 399; as an element of beauty, 26; as contrasted with comparison in representation, 4–9, 385–402; in architecture, 385, 386, 388, 398, 399.
Assumption, The, 46.
Assyrian architecture, 386, 396.
Astonished horror as expressed in countenance, 175, 187, 188.
Astonishment, 179, 185, 190; and attention, 187, 188.
Athena of the Capitol, 76, 224, 281.
Attack, An, expressed in pose, 62, 65, 145, 167, 171.
Attention, as expressed in countenance, with astonishment, 186, 187; apprehensive, 173, 175; thoughtful, 172, 187, 190; unconfiding, 167, 169, 175, 176, 178, 185; unconvinced, 167, 169, 175, 176, 178, 185, 186, 187.
Audible representation, 3, 14–23.
Audience Hall, 336.
Aurora, picture, 61, 71, 72, 136, 265, 272.
Australian, chiefs' houses, 80, 374–376, 386, 397; University at Sidney, 84, 324, 349, 351, 352, 355, 359, 360, 362, 369, 380.
Author and Critics, picture, 62, 63, 151, 152, 156, 172, 173, 177.
Avenue of Palms at Rio, 32, 73, 84, 85, 399, 403.
Awe, as represented in color, 208, 209.
Awkward pose, 61, 133.

Bacchus, early dignity of, 225.
Background, 28, 38.
Backward Movement, 129, 148–164, 167, 175–180.
Balance, the art method, 93, 95, 170; in face, 99.
Balustrade, as representative of a flat roof, 360, 362.
Baptistry of Florence, Relief on, 247, 248, 286, 302.
Barnes, A., 115, 117, 118, 124, 182.
Barry, 50, 77.
Barton, B., 57.
Barye, 302.
Battle, colors in, 200, 210.
Baudelaire, vii.
Bay window, 327.
Beardsley, A., 236.
Beauty, association an element of, 26; definition of, 26; in human shape, 26; in countenance, 97, 103; its connection with regularity, 97–103.
Bedford Building, Boston, 323, 370, 371, 380.
Bedouin, x.
Beggar Boys, picture, 202.
Belfry as representative, 357.
Bellini, 46.
Benediction, as representative, 161.
Berlin, Schiller Platz, 354, 357, 380; Unter den Linden, 344, 360, 364.
Beverley Minster, 32, 82, 84, 380, 388, 399, 405.
Black, 207–210; marble, 203.
Blake, 301.
Blanc, C., 46, 73, 74, 292.
Blue, 195, 197, 198, 200, 209, 210, 220.
Blue Boy, The, 264.
Blue veins, 202.
Body, Human, as representing emotion and thought, 60–62, 106–192, excitability, 108, 111; discomfort; 142, 162; gracefulness, 61, 133; matter under control of mind, 104, 105; mind under constraint, 61, 133; persistence, 114, 118, 122; persuasion, 62; reflection, 126–137, 142–149, 156, 162, 167, 190; rejection, 158; repose, 69, 70; self-consciousness, 61; surprise, 130, 163, 171; threatening, 62, 65, 145, 167, 171, 172, 183; unconsciousness, 61, 133; unconstrained, the, 61, 129, 133; by length, 61, 108, 109, 113, 137, 145, 152; by movement, aggressive, backward, awkward, graceful, etc., 61, 62, 108, 132–189; by shape, 106–124; by size, 168; representative effects of parts of the body, 123, 124, 142; *i. e.*, abdomen, 110, 116, 123, 142, 162; breast, 127, 128, 142, 148; elbows,

123; extremities, 111–113, 123; eyebrows, 98, 100, 112, 119, 172, 181, 184, 185, 187, 188; eyes, 115, 121, 124, 166, 168, 170–190; feet, 112, 123, 124, 134, 145, 146, 166, 188; fingers, 151, 155–163; forehead, 98, 99, 102, 119, 120, 124, 129, 156, 168, 169, 171, 182, 184, 188; hand, x, xi, 112, 155–161; head, 147–166; hips, 123, 138, 142, 144, 147; jaw, 116, 124, 167; knee, 145, 146; legs, 123, 145, 146; limbs, 21, 24, 25; mouth, 112, 115–118, 181–185, 189; nose and nostrils, 98–102, 112, 120, 121, 124, 129, 181, 183–185, 188, 189; palm, 123, 124, 156, 161, 181; shoulders, 123, 148; torso, 110, 123, 126, 142, 144, 145, 147; temperaments and shapes of, 108–114. See Countenance.
Bol, 272.
Bonaparte, 115–120, 124, 169, 177, 179.
Book of the Dead, 222.
Borderland, 237.
Boulevard St. Michael, 84, 344, 345, 363, 364.
Boy Surprised, 130, 163, 171.
Breadth, representative of vitality in the hand, 120–122; face, 115, 116; form, 108–114; movement, 151; as in facial expression, 181; in the fist, 155.
Breast, as expressive, 127, 128, 142, 148.
Breton, J., 202, 307.
Bright colors, 22, 195–212; light, 199, 202.
Bronze, 203, 403.
Brow, as expressive, eye-, 171, 173, 174, 177, 179; forehead, 156.
Brown, M. T., 107.
Browning, 58.
Buddha Gaya Temple, 380, 399, 400.
Building, as expressive of thought, 337. See Architecture.
Buoyant, The, as represented by curves, 65, 73.
Buttresses, 323, 342, 349.
Byron, 284.
Byzantine, 36, 78.

Cabanel, 295.
Cain, statue, 156–158, 174, 281.
Callimachus, 387.
Calmness, as expressed in countenance, 189.
Canova, 50, 286.
Cantilever Bridge, as representative of reflection, 20.
Capital, of column, 386, 387; at Denderah, 395, 396, 398; composite, 380; Corinthian, 32, 34, 380, 387, 390, 394, 396; Doric, 380, 387–389; Egyptian, 32, 34, 395, 398; Ionic, 380, 388, 389; from Cathedral at Rheims, 390, 395, 396, 398; from Persepolis, Persia, 394, 398; Gothic, 390; Romanesque, 390.
Caractacus, 57.
Caravaggio, 169, 271.
Card Players, picture, 169, 172, 270, 271.
Carving, earliest, 215, 216.
Castellated, 360, 361.
Castle, Mediæval, 360.
Cathedral, Cologne, 35, 52, 78, 81, 82, 84, 86, 323, 380, 405; color in a, 203, 204; Ely, 78, 380, 390, 392, 405; Gothic, 382; New York, 204; Proposed, 334, 335, 378, 380; San Vitale, 380, 390, 391; St. Isaac's, 34–36, 38, 42, 52, 78, 82, 352, 353, 356, 380; St. Mark's, 36–38, 42, 52, 78, 82, 86, 380; St. Sophia, 78, 80, 82, 86, 380; Wells, 203, 205, 380, 405.
Cave, Primitive architectural decoration of, 315–317, 374–376, 387, 388; of Elephanta, 315, 316, 375, 376, 389.
Ceiling, 207, 327–331.
Central-Point, 90.
Century Company, 236.
Cerebro-spinal nerves, 114, 127.
Chancel, 336.
Chapel, Henry VII., 380, 403–405.
Chase, 308.
Cheap, architectural ornamentation, 355–357, 371, 407; in spires or pinnacles, 355–357, 371.

Cheeks, as expressive, 191.
Chenonceau Chateau, 346–348, 352, 378.
Chest, as expressive, 114. See Breast.
Chiaroscuro, 17. See Light and Shade.
Chicago, Columbian Exhibition, 84, 270; Court of Honor, etc., 363–365, 380; Douglas Park University, 337; University of, 369, 380.
Chierici, G., 152.
Childe Harold, 284.
Chin, as expressive, 98, 102, 112, 118, 129, 156, 168, 171–176, 179.
China, Art of, 232, 236.
Chinese, 218; palace at Pekin, 376, 377.
Chodowieck, D., 61.
Christianity, Early, and Art, 226.
Church, 336, 357; American, 327, 328, 330, 355; color in, 203, 204; support and decoration of roof and ceiling, 329, 330, 332, 334.
Circle, as representative, 89, 90, 97.
Circular, 92. See Curves.
Classic Line, 294–296.
Claude, 260, 261.
Climax, Rhetorical, 55.
Clock tower, as representative, 357.
Closing Gesture, correlated as made with hands to facial expression, 182, 183, 185; downward, 134, 136, 156, 158–160; finger, 134, 136, 156, 158–161; form of, 140; sideward, 130, 132, 140, 156–158; upward, 130, 132, 145, 152, 156–161.
Cold colors as representative, 195–212.
Coleridge, 244.
Colleges, Architecture in, 367–369.
Collier, 218.
Cologne Cathedral, 35, 52, 78, 81, 82, 84, 86, 233, 380, 405; gargoyle on, 393, 394, 398.
Color, 18, 19, 22, 95; as representative of mental conceptions, 192–212; of material surroundings, 300–310; of various definite ideas, like apprehension, 207, 208; awe, 208, 209; cosiness, 207; delicacy, 203; depression, 194; dignity, 199, 202, 203; distance and nearnesss, 206, 207, 294, 295, 307–309; exhilaration, 210; gayety, 199, 204; ghastliness, 209, 211; grandeur, 202, 207; grossness, 202; horror, 208, 209; hostility, 208; joyousness, 204; largeness, 207; life, 198, 309; massiveness, 206; movement, 309; nature, 197, 198; perplexity, 194, 208; refinement, 203; seriousness, 199, 202, 203; texture, 306, 307; correlated to sound, 195–198, 201; effects of, in countenance, 202, 211; in aërial perspective, 206, 307, 308; in architecture, 203–207, 363, 406; in early painting, 302, 303; in nature, 291–310; in sculpture, 203, 280; natural and man-made, 198; related to light and shade, 18, 193–195; representative effects of black, 207–210; bright, 22, 195–212; bright and warm, 195, 196; cold, 195–212; contrast of, 199, 204, 207–209, 294, 296, 298, 304, 306, 308; dark, 22, 195–212; dark and cold, 195, 196; gray, 200, 203, 207; green, 195–198, 209, 210; mixed, 207–211; orange, 195, 197, 198, 209, 210; red, 195, 197, 198, 200, 201, 209, 210; white, 203, 204, 207, 210, 211; yellow, 195, 197, 198, 200, 210, 220.
Color Exhibition, Cover of Water, 232, 233.
Columbia College, 367.
Columbian Exhibition. See Chicago.
Columns, 8, 9, 26, 32, 86, 403. See Pillars.
Comic facial effects, 190, 191.
Comin' thro' the Rye, ix.
Communication, 186; not the end of art, 216–221.
Comparison, representation by, 4, 6–13, 28, 32, 37, 214, 385, 386, 398; contrasted with association in representation, 4–9, 385–402; in architecture, 385, 386, 398; relation to imitation, 6, 8, 9, 13.
Complex, 68, 82.
Complicated, 68.

Composite capital, 380; style, rank of, 404.
Compound stress, in elocution, 16.
Concentration of thought as expressed in the countenance, 188.
Conceptions, Mental, as represented in art, 226; in architecture, 28–38, 41, 322–371; in painting and sculpture, 226, 239–279, 286–290. See Mental, Mentality, Mind.
Confidence, as expressed in countenance, 172, 173; satisfied, 177.
Constrained, 61, 133.
Constructive idea, as representative, 322, 323, 326, 327, 336; in architecture, 322–334.
Contempt as expressed in countenance, 100, 177.
Contempt and Discontent as expressed in countenance, 181, 183, 185, 188, 190.
Contemptuous Rage as expressed in countenance, 175, 176, 178, 181, 182, 183, 186, 189.
Contour, 98.
Contrast, Effect of distance on, 91, 206, 294, 296–298, 304, 306, 308; of color, 199, 202, 207–209, 294, 296, 298, 304, 306, 308.
Contrition as expressed in countenance, 186.
Conventional, architecture, 406; as significant, 212; shapes, 226, 388, 390.
Conventionalism, 222, 225.
Convex, 77.
Corbel from Cathedral of Rheims, 38, 390, 396, 398.
Corinthian, Capital, 32, 34, 380, 387, 394, 396, 398; style, rank of, 404.
Cornice, 349, 360.
Corot, 259, 295, 296, 301.
Correspondence, Principle of, 4, 99, 113.
Costly material in architecture should represent less costly, 375–377, 407.
Cottage and Domestic Architecture, Old, book, 337.
Cottages as representative, 54, 337–342, 358, 359.
Countenance, beauty of, 97–103; color effects in, 202, 211; individuality necessary in, 103; regularity of, 101–104; representation in, of acceptance, 186; amazement, 184; ambition, 173, 174, 186; amiable suspicion, 171, 177; apprehensive astonishment, 179, 185–190; apprehensive attention, 173, 175; apprehensive grief, 173, 177, 183, 184, 190; arrogance, 100; astonished horror, 185, 186, 188; astonishment, 179, 187, 190; attention with astonishment, 186, 187; with apprehension, 173, 174; thoughtful, 172, 186, 190; unconfiding, 167, 169, 175, 176, 178, 185; unconvinced, 167, 169, 175, 176, 178, 185–187; of being aggrieved, 177; calmness, 189; concentration of thought, 188; confidence, 172, 173, 177; contempt, 100, 177; with discontent, 181, 183, 185, 188, 190; contemptuous rage, 175, 176, 178, 181, 182, 183, 186, 189; credulity, 167, 168, 171, 174; crying, 184; curiosity, 183, 184, 187; disappointed desire, 174, 175, 184, 185, 186; despair, 175, 176, 185; discontent, 121, 183, 185, 188; disdain, 189; displeasure, 183; doubt, 172; eagerness, 169; egotism, 177; expectancy, 187; faith, 178, 179; faith, hope, and love, 147–149, 151, 162, 169; fear, 175, 185, 186, 188, 190; fear and rage, 175, 181, 184, 186, 189; force, 171; fright, 175, 176, 189; gravity, 183; hatred, 100; hopelessness, 173, 174, 186; horror, 175, 185, 186, 188; impudence, 167, 177, 178; interrogation, 171, 172; laughter and gayety, 100, 183, 184, 185, 187, 189, 191; malice, 100, 177, 185; perplexity, 172, 173; pride, 100; (unconfiding), 167, 176, 177; questioning, 171, 172; rage and fear, 174, 175, 181; religious rapture, 174, 175, 179; reflection, 182, 184–186, 188; rejection, 183, 189; rapture, 174, 175, 179; sadness, 189; scheming, 171; scolding, 100;

seriousness, 186, 202, 203; smiling, 100, 183, 184; sneer, 100; solicitude, 186; sorrow, 173; stubbornness, 176; submission, 174; superiority, 178; surprise, 171, 175, 186, 187; suspicion, amiable, 171, 186; terror, 173, 183–186, 188; threatening, 166, 167, 169, 171, 173, 183; triumph, 179; unamiable suspicion, 171, 177; unconfiding pride, 167, 176, 177.
Court of Honor. See Chicago.
Crane, W., 41, 43, 45, 64, 69, 293.
Credulity as expressed in countenance, 167, 168, 171, 174.
Criticism, constructive and destructive, 406; valid arguments against a system of, 406.
Crucifixion, The, 202.
Crying as expressed in countenance, 184.
Cupola, 331, 332, 355, 357.
Curiosity as expressed in countenance, 183, 184, 187.
Curvature of contour, 93.
Curves, compound, in pose and gesture, 138, 140; representative, 17, 21, 55–87, 90, 110; of buoyancy, 65, 74; freedom, 61, 65; 133; grace, 61, 133; growth, 82, 87; nature, 80, 82.

Dancing Movements, 130, 135, 136, 142.
Dante, vi, 209.
Dark colors, 22, 195–212; and cold, 195, 196.
Darwin, 107.
Daubigny, 301, 308.
Davidian Architecture, 380.
Da Vinci, 46.
Decamps, 308.
Decorated Gothic, 380, 390; rank of, 404.
Decorative Art, 211.
Degeneration, vi.
Delicacy, representation of, 44.
Delivery of Keys to St. Peter, 77.
Delphi, 224.
Delsarte, 128, 130, 132, 133, 142.
De' Medici, Giuliano, Tomb of, 50, 301, 302.
De Mortillet, A. and G., 215.
Denderah, Capital at, 395, 396, 398.
Denner, B., 226, 307.
Depression as represented in color, 194.
Descent from the Cross, The, 202, 276, 277, 287.
Descriptive gesture, closing, 156–162; opening, 138, 151, 159, 160; poetry, 246.
Desire, disappointed, as expressed in countenance, 174, 175, 184–186.
Despair as expressed in countenance, 175, 176, 185.
Destruction of Jerusalem, 248, 250, 265, 272.
De Superville's Diagrams, 189.
Detaille, 272, 275.
Details, effects of distance on, 91, 206, 294, 296, 298, 304, 307, 308; growth of imitation of, 385–402; in all the arts, 385, 386, 399–401; in architecture, 385–402; shape of hand indicating attention to, 122.
Diagrams of Duval, 189; of De Superville, 189.
Diana à la Biche, 224.
Dias, 301.
Dignified as expressed in outline, 37, 73, 112, 114.
Dignity, 37, 66, 84, 149; in architecture, 332, 356, 366; in color, 199, 202, 203.
Dignity and Impudence, 262, 263.
Direction of Lines, 56, 74. See Angles, Curves, Lines.
Discontent as expressed in countenance, 121, 183, 188.
Disdain as expressed in countenance, 189.
Displeasure, as expressed in countenance, 183.
Distance, 28, 34, 37, 91; effects on magnitude, light, contrast, and detail, illustrated, 91, 206, 294, 296–298, 304, 307, 308; on perspective in color, 206, 207, 294, 295, 307–309; in drawing, 293, 294, 298; in sculpture, 302.
Distinctness of line and outline, 295–298.

Doggett, 46, 73.
Dome, as representative, 38, 352–354, 356, 357, 378; false, 354, 355.
Domestic architecture and cold colors, 203–205.
Doors, 342, 349.
Doorway, 20.
Doré, G., 209.
Doric Greek style, 380, 387–389, 404.
Dou, 307.
Doubt as expressed in countenance, 172.
Douglas Park University, Chicago, 337.
Downward, gesture, 152–163; glance of eye, 171, 172, 178.
Drapery, 303, 306.
Drawing as representing mental states, 58–60.
Dream, Detaille's, 272, 275; of Jacob, 272.
Dresden Gallery, 260.
Drowning Man, 128, 129.
Dupré, G., 157.
Duration, 15, 18, 37, 39.
Duval's Diagrams of Facial Expression, 189.
Dying Gladiator, Gaul, or Galatian, 282, 283.

Eagerness as expressed in pose and countenance, 169,
Ear, proportionately divided, 90, 97, 98, 124; parallel to nose, 98.
Easter Advertisement, Gorham Company, 235, 236.
Egotistic as expressed in pose and countenance, 177.
Egypt, 218, 389.
Egyptian, ancient face, 203, 221, 222; art, 220–222; buildings, 386; capital, 32, 34, 386, 394, 398; hieraco sphinx, 393, 398; paintings, 304; picture from "Book of the Dead," 219, 221, 222; temple, 394, 396, 398; writing 219, 221.
Ejaculations as leading to language, 4–6.
Elbows, as expressive, 148; as bent in questions, 138, 140.
Elements of Art Criticism, 386.
Elephanta, Cave at, 315–317, 375, 376, 389, 397, 403, 407.
Elevation of Soul as represented by upward lines, 68, 84.
Elizabethan Gothic, 380.
Ely Cathedral, Choir of, 78, 380, 390, 392, 405.
Emotional, 121.
Emotions, as represented in architecture, 78, 82, 86; in art, 1, 2, 12, 13, 23, 214, 215, 240; by lines, 59–61, 66, 68, 73, 78, 82, 86; in painting of animals, 262, 263; of landscapes, 259–262; of portraits, 268, 269; through variety of color, 194, 195, 200, 208, 209.
Emotive, effect of regularity, 96; excitation expressed in color, 194, 200, 208, 209; expression in gesture and face, 129, 130, 136–138; 140, 142, 145, 169, 170, 180–182, 191; tendency in art, 11–13, 19–22, 59–61, 66, 82, 94; in bodily expression, 113, 114, 118, 123; why connected with moral expression, 113, 114; why its seat in arms, 136; in breast, 127, 128.
Emphasis, as imparted by shading, 17.
Encyclopædia of Architecture, 384.
Energy, mental and material, as represented in arts of sight, 19, 42, 44, 46–56, 59. See Strength.
England, Art in, 243.
English Literature, History of, 218.
Englishman's intonations, ix.
Entablature, Architecture of, 78, 84, 86, 378–382.
Excitability, how represented in body, 108, 111.
Excitation by color, 194, 200, 208, 209.
Exeter Hall, 326, 327, 330, 336.
Exhibition. See Chicago.
Expectancy as expressed in countenance, 187.
Explanations, function of, in paintings and statues, 251, 254, 286–290.
Expression, differing in each art, 30, 311–314; emotive, 11–13, 19–22, 59, 60, 61, 66, 82, 94, 127–130,

136–138, 140, 142, 145, 148; facial, determined by contrast, 168; in gesture by one's conceptions, 154, 168; in men and animals, 107; instinctive, 4, 6–13, 19–21, 58, 59, 60, 62, 63, 72, 94, 126–137, 142–149, 166, 214; human, as developed in art, 23; reflective, 6–13, 19–21, 59, 61, 62, 65, 66, 73, 82, 94, 95, 133, 134, 137, 142, 175, 198; responsive, 30, 311–314; subjective, 30, 311–314; sustained and unsustained, 30, 311–314. See Architecture, Body, Color, Countenance, Lines, Painting, and Sculpture.
Extension, 14, 15.
Extraneous force represented by outlines, 66, 72.
Extremities of body as representative, 111–113, 123.
Eye, divided proportionately, 90, 97, 98.
Eyebrows, 98, 100, 112, 119, 172, 181, 184, 185, 187, 188.
Eyes, 115–121, 124, 166, 168, 170–190; closed or open, 186–188.

Face, human, American type of, 101; divided proportionately, 90, 96–98; front, 90, 97, 98, 101–103; Greek type of, 100, 101; regularity of, 89, 98–103; side, 90, 97, 98; significance of movements of, 165–171; of different parts of, 115–121.
Facial Expression, 165–191. See Countenance.
Fairies' Song, 57.
Faith as expressed in countenance, 178, 179.
Faith, Hope, and Love as expressed in countenance, 147–149, 151, 162, 169.
Farnese Hercules, 20, 21, 24, 26, 281.
Farragut, 266.
Farrar, 5.
Fawn of Praxiteles, 61, 144, 147, 282.
Fear as expressed in countenance, 179, 185, 186, 188, 190.
Fear and Rage as expressed in countenance, 175, 181, 184, 186, 189.
Feeling, mental, as represented in art, 19, 46–48; in architecture, 317, 321. See Emotions and Emotive.
Feet, expression, by 112, 123, 134, 145, 146.
Figure, human, divided proportionately, 90, 96–98; painting, 263–278; significance of different parts of body, 115–130.
Figures carved in stone age, 215, 216.
Fine Art, 225, 315; Pictures, 93.
Fingers, correspondence between their gestures and those of face, 166, 181, 182, 185, 188; gestures with, 151, 155–163; shape of, 121, 122, 124.
First Communion, The, 202; Principles, 127.
Fist gestures, 134, 155, 156; correspondence of, to face gestures, 181, 183, 185.
Flaubert, G., vii.
Flaxman, 280.
Florence, Relief from Baptistry of, 247, 248, 286, 302; Strozzi Palace at, 346, 347, 359, 360.
Flower-painting, 255–258.
Flowers for the Hospital, picture, 268.
Flying Mercury, 21, 25, 26, 62, 73, 135, 152.
Force, as represented in lines, 15, 18, 39, 42; in the countenance, 171.
Foreground, 28, 37.
Forehead, 98, 99, 102, 119, 120, 124, 129, 156, 168, 169, 171, 182, 184, 188.
Foreshortening, 298.
Form *versus* Significance, vi, vii, 221–290.
Fortuny, 304, 307.
Forward movements of body as representative, 129, 148–164, 166, 167, 169, 174.
Foundations, 38, 322, 323, 342.
Fowler, O. S., 108, 109, 111, 112, 114.

Framework of lines, for pictures, 73, 89, 90, 95–103; representing both natural and mental requirements, 94.
France, Art in, vi, 243.
Freedom, 61, 65, 133.
Frieze of Parthenon, 223, 225, 281, 282.
Frightful as expressed in countenance, 173, 177.
Fromentin, 390, 308.
Fruit-painting, 256–258.
Fussy, The, 356.

Gable, 334, 362, 363.
Gainsborough, 264.
Galatian Dying, 282, 283.
Galileo, Face of, 173, 174.
Galway, Queen's College, 84, 349, 350, 355, 359, 360, 380.
Gargoyle, 393, 394, 398.
Gaul Dying, 282, 283.
Gautier, T., vi.
Gayety, as represented in countenance, 183, 184, 187, 189, 191; in color, 199, 204.
General Elliot, Portrait of, 266.
Genesis of Art-Form, The, 56, 90, 92, 93, 224, 306, 327, 406.
Genre painting, 270–272.
Germany, Art in, 243; law regulating height of buildings, 366.
Gérôme, 31, 274, 287, 295. See Pollice Verso.
Gestures, 2, 107; away from body and toward it, 162–164; closing, 130, 132, 134, 136, 152, 156–161; compound curve in, 138–140; correspondence between hand and face, 166, 181, 182, 185–188; meaning of, x, xi, 125–189; fingers, 151, 156–163, 166; fist, 134, 155, 156; opening, 138, 151, 159, 160, 161, 182, 185–188; place where struck sideward, upward, or downward, 150–154; shape of hand in, 155–161.
Ghent, Street in, 344, 346, 362, 380.
Ghiberti, L., 248.
Giants from Temple of Agrigentum, 395, 396, 398.
Giovanni da Bologna, 21.
Girlhood of the Virgin Mary, 229, 230, 252, 295.
Giuliano de' Medici, Tomb of, 50, 301, 302.
Gladiator Dying, 282, 283.
Goldsmith, Face of, 109, 113, 115, 117, 119, 124, 187.
Gorham Manufacturing Co., 235, 236.
Gossip, 304.
Gothic Architecture, 8, 9, 34, 35, 52, 68, 78, 86, 349, 369, 378–384; capitals, 390, 395, 396; cathedrals, 226, 382, 398, 399 (see Cathedrals); decorated, 380, 390, 404, 405; Elizabethan, 380; emotive effects of, 86, 87; fitted for groups of buildings, 367, 369; florid, 380, 404, 405; nave and trees, 398, 399; perpendicular, 380; pillars, 388; pointed, 380–384, 404, 405; styles of, 380–384; rank of styles, 404, 405; Tudor, 380.
Graceful, as expressed by surfaces, 49; by curves, 61, 133.
Gradation, in line, 15–18, 22, 39, 42; in color, 306; in outlines, 55–87.
Grammar of Painting and Engraving, 46, 73, 292.
Grand style in Greek sculpture, 281.
Granet, F. M., 304.
Granite, 203.
Grave, as expressed in line, 74; in the countenance, 183.
Gray color as representative, 200, 203, 207.
Greco-Roman Architecture, 34, 36.
Greek, architecture, 8, 9, 34–36, 78, 86, 378–384, 395–398, 404, 405; art separate from writing, 222, 223; composite capitals and style, 380, 404; conventional forms in, 394; Corinthian capitals and style, 32, 34, 380, 387, 394, 398, 404; Doric capitals and style, 380, 387, 389, 393, 404; groups of buildings, 367, 369; groups of statues, 223,

224 ; Ionic capitals and style, 380, 388, 389; rank of architectural styles, 404; sculpture, 76, 224, 225, 281–284; temples, 52; type of face, 100, 101
Greeks, 57.
Green color as representative, 195, 197, 198, 209, 210.
Greuze, 47.
Grief, apprehensive, as expressed in countenance, 173, 183, 184, 189, 190.
Groups, in buildings, 367, 369; in statues, 223, 224.
Growth, appearance and effects of, 65, 82.
Guido, 71, 265, 272.
Gutters, 359, 360.
Guttural, elocutionary tone, 197, 208, 209.
Gwilt, 384.

Hals, 307.
Hall of Mechanical Arts, Columbian Exhibition, 363.
Hand, as bent in gesture, 138–140; as used in gesture, 149–164; correspondence between its gestures and facial expression, 166, 181, 182, 185–188; representation by natural shape, 121–124; assumed shape, 112, 155–161. See Fingers, Fist, and Gestures.
Handbook, of Drawing, 97; to the Egyptian Court, 220.
Handling or touch, 15, 16, 19, 21, 42–54; in architecture, 51–54; in painting, 42–48; in sculpture, 48–51.
Harper Brothers, 236.
Hatred as expressed in countenance, 100.
Haydn, 402.
Head, meaning of movements of, 147, 148, 166–189; in connection with facial expression, 166–178; phrenologically divided, 115–121, 124, 167; significance of different parts of, 115–121.
Heaviness, Representation of, 25, 26, 37.
Height, Effect of, lessened by largeness of environment, 32; by width, 34, 35; representing high rooms and air for crowds, 38.
Heine, 272.
Helmholtz, 378, 385, 398.
Henry, II. Receiving Crown, 27, 29; VI., 244; VII.'s chapel, 380, 403–405.
Heracles, Triton and Nereids, 27, 222.
Herculaneum, 320.
Hercules, Farnese, 20, 21, 24, 26, 281.
Herder, 5, 117.
Heroic Sculpture, Greek, 281.
Hieraco Sphinx, 393, 398.
Hieroglyphics, 218–221.
High, buildings, 364–367; school tower, 327, 330.
Hips, expression by, 123, 138, 142, 143, 147.
Historical paintings, 274, 275; sculpture, 286.
Holyrood ornamental arcade, 226, 227.
Hopelessness, Expression of, in countenance, 173, 174, 186.
Horizontality, 65, 66, 72–74, 78, 82, 84, 90, 97, 166, 378; in gestures, 150, 151.
Horror, in color, 208, 209; in countenance, 175, 185, 186, 188.
Hostility in color, 208.
Hottentot Krall, 80, 377, 379, 384.
Hours with Art and Artists, 292.
Houses, at Morlaix, 323, 324; representatively constructed, 52, 318, 319, 323, 324, 343, 344, 360, 380. See Huts.
Houses of Parliament, 34, 36, 38.
How, they Brought the Good News, 58; to judge a picture, 292, 300.
Human element in landscape, 259. See Art, Artist, Body, Face, Figure, Hands, Head, etc.
Humanities, The, 2, 242.
Hunt, Leigh, 57.
Huts, originals, from which houses are developed, 80, 374–379, 383, 384, 397.

Iambic Measure, 57.
Idea, Constructive, as represented in architecture, 322–334.
Ideographic writing, 217.
Illustrated magazines, 236.
Imagination, appeal of mixed forms to, 68; play of, viii, 318, 319, 354.
Imitated, developed in architecture later than conventional forms, 387.
Imitation, 3, 4, 6–13, 30, 59, 70, 214–217, 226, 237, 385, 386, 388, 398, 399; advances in all art from generic to specific, 385, 386, 398, 399, 402; in architecture, 28–32, 312–314, 374–385; in metaphors and similes, 243, 244; in music, 28–32, 312–314; in painting, 226–229; *versus* invention in architecture, 406. See Representation, associated or suggestive, and comparative or imitative.
Imitative, 2; as contrasted with suggestive in all the arts, 385–402; in painting, changes made in, 95; representation in the arts, 27, 28, 214–217.
Immobility, as represented in painting and architecture, 25.
Importance as represented in painting and architecture, 27, 37.
Impressionists, 296.
Impudence as represented in countenance, 167, 177, 178.
Incongruity, 191.
India, Temples of, 380, 399, 400, 401.
Individuality necessary in countenance, 103.
Inferno, The, 209.
Influential, The, as represented in painting and architecture, 27.
Initial elocutionary stress, 16.
Inness, G., 259, 308.
Instinctive tendency in expression, 4, 6–13, 19–21, 58–60, 62, 63, 72, 94; in color, 193, 194, 198; in drawing, 58–60; in the human form, 126–137, 142–149, 166, 214.
Intensity as represented, 39.
Interest in a building, 323, 338–342.
Interior of a building as determining exterior appearance, 337–352.
Interjections or ejaculations in formation of language, 4–6.
Interpretive or mental temperament, 111–113, 122, 124, 126; facial movements, 166; inward and outward movements, 129, 130, 162–164.
Interrogation as expressed in countenance, 171, 172.
Intonations, Meaning of, ix, x.
Ipsambool, Egyptian Temple at, 394, 396, 398.
Iron, as used in building, 326–331, 358, 403; concealed, 329, 330.
Irregularity, 15–18, 22, 88–103.
Israels, 308.
Italian, Early, paintings, 304.

Japan, Art of, 232, 236.
Japanese compositions, 90, 93.
Jarvis, 282.
Jaw, expressive of, 116, 124, 167.
Jewish Cemetery, The, 260, 261.
Jones, Owen, 220.
Joshua, Life of, picture, 248.
Joyous Conception, as represented by color, 204; by lines, 65, 74.
Judas, Peter, and John, picture, 147, 148, 150, 158, 167, 169, 287.

Kaffir Station, picture of, 377, 378, 381, 384.
Kaulbach, 248, 250, 265, 272.
Kermesse, 47.
Knee, Expression with, 145, 146.
Kostroma, Church near, 25, 26, 32, 34.
Lamps, Seven of Architecture, Ruskin, 54.
Landscape, gardening, 95; as representing man and nature, 70; painting, 95; as representing artist and significance, 258–262.
Landscape with Waterfall, picture, 260.
Landseer, 262, 263.
Language and Languages, 5; and the Science of, 7; origin of, 4–7.
Laocoön, Criticism of, 245–253, 284–

286; group of, 49, 77, 174, 223, 281, 284, 285.
Large size, as representative, 8, 9, 24, 25, 28, 38.
Last Judgment, picture, 47.
Laughter, and gayety, as expressed in countenance, 100, 183–185, 187, 189, 191; and smiling, 100, 183, 184.
Lavater, 117–119.
Leaning of head, forward, 168–175; sideward, 173–180.
Leaving for Work, picture, 295, 299, 300.
Lectures, on Design, 252, 276; on Sculpture, 280.
Leg, Expression with the, 123, 145, 146.
Length as representative, in body, 61, 108, 109, 113 135, 145, 152; in hand, 121–123; in head, 115; in gesture, 135; in lines of architecture, 84; of painting, 73, 74; of nature, 66–70; moral effect of, 60, 108–114.
Leonardo, 305.
Lerolle, 308.
Lessing's Theory, 245–253, 270–272, 284.
Lesueur, 74.
Life and Movement, as expressed in color, 309; in drawing, 293, 298–302.
Life Drama, poem, 244.
Light and Shade, 17, 18, 41, 42, 50, 51, 55, 293, 294; in color, 304–306, 309; in drawing, 293, 294; in sculpture, 41, 302; in architecture, 52, 54; lines expressive of. 18, 41, 44, 46, 294, 307.
Light, as related to Color, 193, 194, 195; effects of distance on, 91, 206, 294, 296, 297, 304, 306, 308.
Lightness as represented, 25, 26.
Limbs, human, Size of, as representative, 21, 24, 25.
Lines, as expressive of aspiration, 68, 73, 74, 84, 108; buoyancy, 65, 74; character, 73–87; in architecture, 78–87; in painting and sculpture, 44–50, 70–77, 269; of dignity, 37, 66, 73, 84, 112, 114, 149, 332, 356; elevation of aim, 68, 84; energy, mental and material, 19, 42, 44, 46–56, 57, 59; extraneous force, 66, 72, 87; freedom, 61, 65, 133; force, 15, 18, 39, 42; gracefulness, 133; gravity, 183, immobility, 25, 37; importance, 27, 37; influence, 27, 37; joyousness, 65, 74; life and movement, 293, 298–302; light and shade, 17, 41, 42, 44, 46, 49, 51, 54, 294; persistence, 66, 68; massiveness, 32, 37, 38; repose, 44, 45, 66, 72, 84, 326, 356; seriousness, 66, 73, 74, 82, 84, 85; storm, 43, 44, 65, 66; strength or weakness, 15, 16, 18, 21, 24, 25, 32, 39, 42, 44, 52, 54, 355, 405; substantiality, 25, 332; unconsciousness, 61, 126; unsubstantiality, 26; weakness, 16, 25, 49, 50; yielding, 49; dividing the face and figure proportionately, 88–103. See Angular, Curved, Horizontal, Mixed, Perpendicular, Straight, Vertical.
Lion Hunt, picture, 202.
Lips, Expression by, 115–118.
Literary painting, 228–230, 245–253, 270–272; use of term, 251.
Long, 76, 266.
Longfellow, his face, 109, 113, 115, 117, 119, 124.
Luini, B., 248, 250, 251.
Lungs as expressive of motive temperament, 114.

MacLean, T. N., 143.
Macmonnies, 266, 267, 281.
Madonnas, Raphael's, 265.
Magi, Adoration of the, picture, 72, 73, 174, 263, 276.
Magnitude. Effect of distance on, 91, 206, 294, 296–298, 304, 306, 308.
Malice expressed in countenance, 100, 177, 185.
Mantegazza, 116, 118, 120.
Marble, in architecture, 403; in statues, 203.
Maria, Christina, Tomb of, 50, 73, 263, 286, ; Stern's, 129, 131, 142, 156, 168.
Marjorie, Little, Sargent, 264.

Marks, H. S., 63, 270; St. Venice, 36, 37.
Marr, C., 304.
Marriage, Proposition of, picture, 61, 138, 147, 160, 161, 169, 175.
Massive Outlines as representative, 32.
Material Surroundings, as represented in art, 4, 42, 44, 46–51, 59, 63–78; in architecture, 372–408; in painting and sculpture, 291–310; as representing mental conditions, 2, 42, 46–51, 59, 63–78.
Mausoleum. See Tomb.
Measures, poetic, 16, 17, 57, 88; corresponding to measurements in space, 57.
Measurements, 17, 32, 57, 58, 88; for regularity correspond either in space or shape, 89, 97.
Median elocutionary stress, 16.
Meissonier, 307.
Melody, 18.
Melrose Abbey, 24–26, 32, 34, 203, 322, 380, 390.
Memorial Architecture, 356, 357.
Mental, as represented in the arts of sight, conceptions, 1, 2, 23, 214, 215, 226, 241; in architecture, 311–371; in painting and sculpture, 239–253; control, 115, 120–124, 126; energy, 19, 42, 44, 46–50, 59; expression by inward and backward movements, 129; influence, 19–22, 121, 142, 152, 167–178, 180, 181, 191, 198; purpose in buildings, 334–352; temperament, 108–114.
Mentality, 111, 115, 121, 134. See Mental.
Mercury, Flying, 21, 25, 26, 62, 73, 135, 152.
Mermaid, The, poem, 40.
Merry Miller Song, viii.
Metaphor, Accuracy of imitation in, 243, 244.
Metropolitan Museum, New York, 304, 309.
Mexico, Early writing in, 218.
Millet, J. T., 299, 230–232, 253, 260, 295, 301, 308.
Milton, vi.
Mind, as represented in art, 19, 217. See Mental.
Minerva, 76, 77.
Mixed colors, as representative, 207–211; lines, 59, 75, 77, 87.
Mobility as represented in outline, 25, 26, 37.
Monks in the Oratory, picture, 304.
Monastery, Troitzka, Door of, 380, 388, 390.
Moral, as represented, in bodily shape and movement, by reach, and length, 62, 108–114; by rigidity, 137, 138; by upright position, 178, 180; involving control, 115, 123, 124; connected with emotive expression, 113, 114, 135; influence, 62; its seat in arms and breast, 127, 129, 142; temperament, 108–114, 128.
Moral Thoughts, Tomassee's, 118.
Motive, 19; expression as combining mental and instinctive, 127, 129, 136, 187; or active temperament, 108–114, 128; connection with emotive or moral expression, 113, 114, 135; indicated by length, 60, 108–114; involving control, 115, 118, 122–124; its seat in limbs and breast, 127, 128, 129, 142, 148.
Mouth, expression through, 112, 115–118, 181–185, 189; regularity of, 98, 99.
Movability, as represented in arts of sight, 25.
Movement, as represented in color, 309; in drawing, 293, 298; in sculpture, 302.
Movements, bodily, as representing thought and emotion, 132, 134–189; when aggressive, 168, 169, 171; backward and forward, 129, 148–164, 166–180; inward and outward, 128–130, 162–164, 166–180; oblique, 62, 130, 132, 137, 144, 145, 147, 148, 158, 167, 172, 175; sideward, 130, 148–154, 166, 167, 170–175; upward and downward, 129, 134–137, 148–154, 162–164, 166–180; form of, 138–140; of head, 166–191; of arms and

hands, 149–164; of the torso and lower limbs, 129–149; rotary, of head, 166, 180.
Mukteswara, Temple of, 380, 399, 401.
Munich, Marien Platz, 54, 343, 344, 360, 380.
Mural. See Walls.
Murillo, 202.
Muscles, 114; of face, compared with hand gestures, 181.
Musée, Prehistorique, 216.
Music as a Representative Art, iii, v, 7, 196, 214, 287, 313, 373.
Music, 88, 214, 385; begins earlier and develops later than poetry, 313; developed from intonations, iv, v, viii–x, 7, 313, 372, 373; expression in, iv, v, viii–x, 30, 32.
Musical, 57, 214.
Myra, Rock tomb at 315, 316, 375, 376, 387, 397, 403, 407.
Mythologic painting, 272; sculpture, 286.

Napoleon, his face, 115–117, 118, 119, 120, 124, 169, 177, 179.
Nathan Hale, statue, 267, 281.
National Gallery, London, 260.
Natural, Appearances, as represented in architecture, 26, 32, 78–87, 312–321, 372–408; in art, 2, 4, 6; in metaphor and simile, 243, 244; in painting, 63–78, 226–236, 291–310; in building material for a locality, 408; colors and dyes, 198; how representing thought, 3, 63–78.
Naturalistic Line in drawing, 294–296.
Nature, as represented in architecture, 374, 375; different from art, 257, 258.
Nausica, Figure from, 60, 61, 72, 129, 130, 133.
Nave of a cathedral resembling trees, 84, 398, 399, 403.
Nearness, as represented by color, 206, 207, 294, 295, 307, 308; by shape and line, 28, 32, 91, 294, 295. See Distance.
Negro Huts, 80, 378, 383, 384.
Nerves, nervous, nerve-force, 111, 113, 114, 119, 121, 126; sympathetic, 126; cerebro-spinal, 114, 127.
Nevill, R., 337.
New Guinea Chief, A, 136–138.
Nightingale, Florence, 268.
Normal, action in nature; how represented, 65, 72; tone in elocution, 197, 207; school building, New Zealand, 331–333, 355, 358, 359.
Nose, Expression by, 98, 99, 100, 112, 120, 121, 124, 129, 188, 189.
Nostrils, Expression by, 102, 120, 181, 182, 185, 188, 189, 191.
Notes as used in measures, 57.

Oblique movements, 130, 144; backward 62 130, 132, 145, 147, 148, 158, 167; forward, 130, 132, 137, 145, 148, 167, 172, 175.
Observatory, 357.
Octagon, 56.
Old South Church, Boston, 35, 52, 54, 84, 331, 380.
Opening Gesture, Curves in the 138–140; downward, 138, 151, 159, 160; likened to facial expression, 182, 183, 186; sideward, 138, 151, 159, 160; upward, 151, 160, 161.
Opera House, Metropolitan, New York, 204.
Opie, J., 252, 276.
Orange color as representative, 195, 197, 198, 209, 210.
Orator's Manual, 133, 163, 164, 197.
Organ Recital, picture, 309.
Oriental temples and palaces like tents, 376.
Originality in architecture, 406, 407.
Originating in art, 405, 406.
Ornamental arcade from Holyrood, 226, 227.
Ornamental, developed from useful features, 318; in architecture, 374, 375, 386–397.
Orotund tone in elocution, 197, 207, 208.
Othello, 244.

Outlines, 15, 17, 19, 20, 22, 32, 40, 41, 42; angular, 55–87, 110; curved, 55–87, 90, 110; regularity of, 88–105; straight, 55–87, 110. See Lines.
Outward Movements, 128–130, 162–164, 166–180.
Ovals, 97, 98.
Overbeck, 228.
Oxford public schools, 360, 369, 380.

Paint, Excessive, appearance of, in a painting, 306, 309.
Painting, allegorical, 248, 272, 274; as representing mental conceptions, 239–279, 286–290; natural appearances, 291–310; time, 245–253; as interpreting itself, 254–279, 286–290; as literary, 228–230, 245–253, 270–272; of details developing late, 385; lines in, 41–48, 70–77; its mode of expression, 30, 32, 70–78, 213–238; distinguished from that of architecture, 30, 32, 311–314; from poetry, 245, 246; from music, 30, 32, 311–314; from sculpture, 280, 281; historical, 274–278; mythological, 272, 273; portrait, 263–269; significance *versus* form in, vi–viii, 239–279; symbolical, 272, 274; touch in, 42–48. See Color, Line, Outlines, Shape.
Palaces, Oriental, 376, 377.
Pallas of Villetri, 47, 49, 76, 281.
Palm, 123, 124; gestures with, 156–161, 181.
Palmistry, iii, 107; shape of hand, 121–124.
Palms, Avenue of, Rio, 32, 73, 84, 85, 399.
Pantomime, iii, 107. See Gestures and Facial Expression.
Paris, Grand Opera House, 405; streets of, 345, 363, 364.
Parallel lines as representative, 56, 59, 65, 68, 73–75, 97.
Parallelism, 90, 91, 92, 95.
Parliament, Houses of, 34, 36, 38, 42, 52, 322, 358, 380.
Parthenon, Figures from, 223, 225, 281, 282.
Pauses, Elocutionary, 15, 39, 40.
Pavilion of Richelieu, Paris, 52, 348, 358, 359, 380.
Pectoral elocutionary tone, 197, 207–209.
Pedant's Proposition of Marriage, picture, 61, 138, 147, 160, 161, 169, 175.
Pekin, Winter Palace at, 358, 376, 377, 380, 386.
Pericles, 225.
Perpendicular, Gothic, 380; Lines, 52, 65, 76.
Perplexity, as expressed in countenance, 172, 173; in color, 194, 208.
Persia, capital, 394, 398; portal at Persepolis, 393, 398.
Perspective, aërial, 206, 307–309; laws of, 28, 32, 37; in architecture, 32; in sculpture, 302; lineal, 28, 34, 37, 91, 293, 296, 298.
Persistence, expressed in natural outlines, 66, 112; of men, 112, 114, 122.
Persuasion expressed in gesture, 62.
Peter Martyr, picture, 46.
Phidias, 223.
Phonetic writing, 218.
Phrenology as explaining expression, iii, 107, 115–121.
Physiognomy, and Expression, 116; as explaining expression, iii, 107, 115–121; Lavater's, 117.
Physiological psychologist, 115.
Physiology as explaining expression, iii, 107–114.
Physical influence, representation of, 19–22; in human form, 110, 113, 115, 121, 123, 124, 168, 171, 174, 175, 181, 183, 185, 198.
Piankhi Receiving Submission, 27, 50, 222.
Picturesque, line in drawing, 294–296; motive in architecture, 314, 316.
Picture-writing, 217–221.
Pilasters, 324, 326, 342–349.
Pillars, 20, 25, 32, 38, 323, 326, 330, 336, 342, 348, 375, 387, 390.
Pinakothek, Munich, 202.
Pinnacles, 355, 371.

Pitch, of color, 19, 22, 39, 195, 196, 199; of sounds, 18, 192.
Plan as represented in a building, 320, 334–352.
Play-impulse of imagination, as developed in architecture, 318, 319, 354; in all art, viii.
Poetry as a Representative Art, iii, 12, 15, 18, 56, 132, 196, 214, 373.
Poetry, 56, 57, 88; as representing time and space, 245, 246; descriptive, 246; early, style of, 385; flowery, never early, 385; form of, exalted above significance, vi; method of expression, 30, 32, 40, 214, 215, 311–314; development of, 372, 373.
Poets, always sharp in shape, 109.
Pointed arches, 380–385.
Pollice Verso, picture, 28, 31, 34, 91, 274, 287, 295.
Pompei, 320, 321.
Porches, 20, 342.
Portrait painting, 263–269; sculpture, 281, 282.
Poussin, N., 46, 48, 74, 75, 139.
Poynter, E. J., 60.
Praxiteles, 48, 144, 223.
Preller, L., 224.
Pre-Raphaelite, 228–230, 252, 295.
Presentation at the Temple, picture, 248, 250, 251.
Pride, expressed in countenance, 100; unconfiding, 167, 176, 177.
Principles and methods of art education, 212, 296.
Prometheus Unbound, poem, 244.
Prophets, picture, 47.
Proportion, 57, 89, 101.
Proportion and Harmony in painting, sculpture, and architecture, 306, 307, 310.
Proportionately divided human face, 90, 97, 98, 101–103; form, 90, 97, 98, 101.
Prud'hon, 48.
Pure elocutionary tone, 197, 207, 210. See Normal.
Purple color as representative, 195, 197–199, 210, 211.
Pyrrhus Saved, picture, 75.
Quality, in sound and color, 18, 19, 22, 40, 192, 196, 199; in color, 195, 196.
Queen's College, Galway, 84, 349, 350, 355, 359, 360, 380.
Questioning expressed in countenance, 171, 172.
Radiation, 90, 95; in natural forms, 92, 93; in perspective, 298.
Rage and Fear, as expressed in countenance, 175, 179, 181, 184, 186, 189; contemptuous, 175, 176, 178, 181–183, 186, 189.
Rank of Art-Work, how determined, 255, 256, 259, 260.
Rape of the Sabines, picture, 46, 75, 87.
Raphael, 77, 79, 104, 201, 226, 227, 248, 250, 255, 265, 272, 276, 279, 287.
Rapture, religious, as expressed in countenance, 174, 175, 179.
Ravenna, San Vitale, 380, 390, 391.
Red, color, 195, 197, 198, 200, 201, 209, 210; and sound of trumpet, 201.
Recent ideals in American art, 292.
Rectangles, 65.
Reflection, as expressed in the countenance, 182, 184–186, 188; in the bodily movements, 129, 142, 156, 162, 167, 191.
Reflective tendency, in color, 193, 194; in expression, 6–13, 19–21, 59, 61, 62, 65, 66, 73, 82, 94, 95, 133, 134, 137, 142, 175, 198; in the human form, 126–137, 142–149; meaning of term, 127.
Reformation, 272.
Regular figure, 56.
Regularity of countenance, 101–104; of outline, 15–18, 22, 39, 42, 68, 73, 88–105.
Rejection expressed in countenance, 183, 189; in gesture, 158.
Relief, Treatment of Design in, 49–51, 302.
Religious, ideas in art, 226; rapture, expressed in countenance, 175, 179.
Rembrandt, 48, 295, 305.

Renaissance, 52.
Repetition, 74, 75.
Repose, in architecture, 84, 326, 356; in landscape and figure illustration, 69, 70, 72, 74, 259; in outlines of nature, 44, 45, 66, 72; Lines expressive of, 18, 44, 45, 70, 90, 93, 259.
Representation, as associative or suggestive, 4–13, 18, 27, 28, 32, 37, 51, 214, 385, 386, 388, 398, 399; as comparative or imitative, 4, 6–13, 27, 28, 32, 37, 214–217, 385, 386, 398; factors of, audible, 2, 14–18; visible, 14–22, 23; the two compared, 14–18; of artist in architecture, 316, 317, 320; in painting and sculpture, 257–272; of form and significance both necessary, vi, vii, 226, 228; of mind and nature go together, 3; of mental conceptions in architecture, 28–38, 51–54, 63–87, 311–314, 322–371; in painting and sculpture, 41–48, 70–77, 239–290, 311–314; of surrounding appearances in architecture, 28, 32, 78–87, 312–321, 372–408; in painting and sculpture, 41–48, 70–77, 291–310; suggestive of such conceptions as brightness, 193, 195–212; dignity, 37, 66, 73, 84, 112, 114, 149, 199, 202, 203; distance, 28, 32, 37, 156, 206, 207, 294, 295, 307–309; freedom, 61, 65, 133; fussiness, 356; heaviness, 25, 26, 37; height, 32, 34, 35, 38; immobility, 25, 37; importance, 27, 37; influence, 27, 37; gracefulness, 49, 61, 133; gayety, 100, 183, 184, 187, 189, 191, 199, 204; joyousness, 65, 74; length, 66–70, 73, 74, 84; lightness, 25, 26; magnitude, 91, 297, 298; movement, 128–130, 132–189, 293, 298, 309; persistence, 66, 73, 112, 114, 122; persuasion, 62; repose, 44, 45, 66, 72, 84, 326, 356; rigidity, 138, 189; seriousness, 66, 73, 74, 82, 84, 112, 183, 199, 202, 203; strength, 15, 16, 18, 21, 24, 25, 32, 42, 44, 48, 50; substantiality, 25, 37, 332; triumph, 179; unsubstantiality, 26; weakness, 16, 25, 49, 50; width, 32, 34, 35, 38; yeilding, 49. See also other conceptions as indicated under Accent, Angles, Architecture, Body, Color, Countenance, Curves, Lines, Painting, Sculpture, etc.
Responsive expression, 30, 311–314.
Resurrection, The, statue, 140, 142, 143, 151, 152, 160, 162, 167, 174, 286.
Reynolds, Sir J., 46, 266.
Rhomboids, 97.
Rhythm, 17, 57, 88, 89.
Rhythm and Harmony in Poetry and Music, iii, ix, 195, 214.
Ribera, 48.
Richelieu, Pavilion, 52, 358, 348, 349, 359, 380.
Rigidity of body expressive of moral force, 138, 189.
Rock, cave carved on inside, 315–317, 375, 376, 389, 407; tomb carved on outside, 315, 316, 375, 376, 387, 397, 403, 407.
Roman art, 381.
Romanesque Architecture, 36, 78, 380, 384, 388, 390.
Romantic Line in drawing, 294–296.
Roofs, 26, 38, 327–329, 334, 342, 353–371; church, support of, 329, 330, 331, 332; flat, 358–360, 362; Mansard, 371; primitive shapes of, 375–378; visible, 359, 360, 362, 370.
Roslyn Chapel, 405.
Rossetti, 229, 230, 232.
Rotary motion of head as expressive, 166, 180.
Rottmann, 260.
Roundness, of body, 110–114; of face, 115, 118; of hands, 121, 122; of movement, 133; suggestive of effects of growth, 82; of nature, 80.
Rousseau, 307, 308.
Rows of trees, 95.
Royal Academicians, Lectures before, 50, 77.
Rubens, 47, 227, 255, 276, 277; his coloring, 202.
Ruskin, 54, 73, 86, 260.

Russian, church, Paris, 82–84, 86, 323; house, 323, 325, 403, 408; Troitzka Monastery, 380, 388, 390.
Ruysdael, 260, 261.
Ryerson Physical Laboratory, 368, 369, 380.

Sabines, Rape of, 46, 75, 87.
Sacrifice at Lystra, Raphael, 158, 276, 279, 287.
Sadness in countenance, 189.
Samson, 386.
San Vitale, Ravenna, 380, 390, 391.
Sargent, 264.
Scale, Musical, 40.
Scene in the Woods, 32, 33, 73, 399.
Scheming as expressed in countenance, 171.
Schiller Platz, Berlin, 354, 357, 380.
School of Athens, Raphael, 201, 248, 249, 250, 272, 287.
Schnorr, J., 226.
Scold expressed in countenance, 100.
Scott, Sir W., 86.
Sculpture, allegorical, 286; as representing details, 385–396, 399–402; mental conceptions, 280–290; light and shade, 41, 302; space and time, 245–253; texture, 303; touch, 48–51; color in, 280; excellence of ancient Egyptian, 222; its mode of expression distinguished from that of architecture and music, 28–33, 311–314; from painting, 28, 281; lines in, 70–78; historical, 286; material of, 203, 280; mythological, 286; subjects demanding dignity of treatment, 280, 281; symbolical, 286.
Self-consciousness as expressed in the human form, 61.
Self-control as manifested in human form, 114, 149.
Self Instructor, Fowler's, 108.
Seriousness, as manifested in color, 199, 202, 203; in countenance, 183; in outlines, 66, 73, 74, 82, 84, 112.
Sensations of Sound, Helmholtz, 378.
Setting, Artistic method of, 91, 92.
Seven Lamps of Architecture, The, 54.
Shade, Light and, 17, 18, 41, 42–50, 51, 55, 293, 294; in color, 304–306, 309; in statues, 41, 301, 302; in architecture, 52, 54; lines expressive of, 18, 41, 44, 46, 294, 306.
Shadows, 52; darkest in brightest light, 294, 306; how produced by color, 294, 302, 304, 305, 307, 308.
Shading, 17, 39, 41, 42, 57. See Light and Shade.
Shakespear, 248.
Shaking hands, 236.
Shape, 15, 18, 32, 88, 89, 110; angularity of, 55–87, 89; curvature of, 17, 21, 55–87, 88–94; representation of, with texture, in color, 306, 307; in drawing, 41, 42, 293, 294; in sculpture, 41, 302; through human, 106–124; though material, 39–87; regularity of, 88–105.
Sharpness, of face and body, 108–115, 118–120; of hand, 121–123, 134, 155. See Angles and Angularity.
Sheldon, G. W., 292.
Shelley, 244.
Shoulders as expressive, 123, 148.
Sides or walls of buildings, 323–352.
Sideward movements of body as representative, 130, 148–155, 166, 167, 170–175.
Sight as used in art, 2, 3, 12, 14–18.
Significance, in architecture, 28–38, 78–86, 87, 316, 317, 320, 321–371; painting, 239–279, 286–290; of animals, 262, 263; flowers and fruits, 256–258; landscapes, 258–262; portraits, 263–269; in sculpture, 280–290; in that of Greece, 222, 224, 225; necessary in painting and sculpture, 221–286; reasons for denying necessity of, vii, 242, 243; *versus* regularity in faces and groups, 102–105; *versus* form in poetry, vi, vii.
Significant in itself, necessary in a painting, 254–278; in a statue, 281–286.

Simile, accuracy of imitation in, 243, 244.
Simple lines, as representative, 76, 77–87 ; effects in architecture, 78, 405.
Sincerity, 330, 332, 407, 408.
Sistine Chapel, 47, 75, 298.
Size, as representative, 15, 19, 20, 23–38 ; of parts of body and expression, 168.
Sky-line, uniformity in street and institutional architecture, 362–364, 366, 367, 370.
Slender as representative, 21.
Smallness as representative, 25, 26.
Smiling face, 121, 184, 187.
Smith, A., 244.
Sneer in countenance, 100.
Soldiers, Colors in uniforms of, 200, 210.
Soldier's Return, relief, 50, 51, 286, 302.
Solicitude as expressed in countenance, 186.
Sorrow as expressed in countenance, 185–188, 190.
Sorrowful countenance, 173.
Soul, as expressed in architecture, 342 ; in art, 12, 202 ; corresponding to emotion, 12.
Sound and Color compared, 192–212.
Sounds as used in art, 2, 3, 23.
Space or spaces as represented in painting, sculpture, and poetry, 245–253 ; as representative in arts of sight, 14–38, 56, 88, 89.
Spanish Lady, picture, 304.
Spatulated fingers, 121, 122.
Spencer, H., 127.
Spine, 114. See Nerves.
Spires, 355, 357, 378 ; primitive, 378 ; Tissington, 65–67, 70, 72, 259, 399. See Towers.
Square as representative, 56, 65, 97 ; of character in the face, 99.
Statues, Greek, 224, 225.
St. Bruno, Life of, picture, 74.
Steel in building, 330. See Iron.
Steen, J., 307.
Stern's Maria, picture, 129, 131, 142, 156, 168.
St. Gaudens, 266.
Stimson, J. W., 212, 296, 297.
St. Isaac's Cathedral, 34–36, 38. 42, 52, 82, 352, 353, 356, 380.
St. Mark's Cathedral, 36–38, 42, 52, 78, 82, 86, 380.
St. Michael and Satan, Raphael, 103, 104, 145, 168.
Stone-age figures, 215, 216.
Storm, 260 ; lines representative of, 18, 43, 44, 60, 72, 259.
Storm, A, picture, 230, 231, 253, 259, 260, 295, 300.
Story told by painting, 252, 253, 268, 270–272.
Straightness, as representative in nature, 56–87 ; in the human face and figure, 112, 134, 138, 140, 149.
Straight lines as representative, 56–87 ; in architecture, 405.
Street Architecture, 362, 363 ; of America, 364–367 ; of Paris, 363, 364, 370.
Strength, Outlines representing, 15, 16, 18, 21, 24, 25, 32, 41, 42, 44 ; in architecture, 32, 41, 42, 52, 54, 355.
Stress, Elocutionary, 39, 56.
String-courses, 323, 342, 344, 346, 347.
Stroke, 15. See Touch and Handling.
Strozzi Palace, Florence, 346, 347, 359, 360.
St. Sophia, Constantinople, 78, 80, 82, 86, 380.
Stubbornness in countenance, 176.
Style, Early, in all the arts less imitative in details than later, 385–396, 399–402 ; Greek and Gothic for groups of buildings contrasted, 367, 369 ; for public institutions, 367, 369.
Styles of Architecture, 78, 378–384.
Subjective expression, 30, 312.
Subjects of art-works, as determining their rank, 255, 256 ; causing allegorical painting, 248, 272, 273 ; and sculpture, 286 ; historical painting, 274–278 ; and sculpture, 286 ; mythological painting, 272, 273 ; and sculpture, 286 ;

symbolical painting, 272–274; and sculpture, 286.
Submission as expressed in countenance, 174.
Substantiality as represented by outline, 25, 37, 332.
Summer Evening, A, picture, 270, 273.
Superiority, Moral, as expressed in pose of head and figure, 178.
Surface, Representation of, 41, 42, 46–49; in color, 306, 307; in drawing, 293, 294; in sculpture, 41, 302.
Surprise as expressed in countenance and pose, 171, 175, 186, 187.
Suspension Bridge, 20.
Suspicion as expressed in the countenance, amiable, 171, 186; unamiable, 171, 177.
Sustained expression, 30, 311, 312.
Sydney, University at, 84, 324, 349, 351, 352, 355, 359, 360, 362, 369, 380.
Syllables in measures, 16, 57.
Symbolic, painting, 272, 274; sculpture, 286.
Symmetry, 93, 95, 96.
Sympathetic nerves, 126, 127.
Synthetic Philosophy of Expression, 108.
Tabernacle as represented in Temple, 376, 377.
Tadema, Alma, 307.
Tails as interpretive, 112.
Taking of Jerusalem, 248, 250, 265.
Tall buildings, 364–367.
Technique, necessity of, vii; of appreciation of, 292; reason for denying necessity of, 243.
Teeth as representative, 181, 189.
Temperaments, 108–114, 124–127.
Temples, Oriental, 376, 377.
Tendrils as interpretive, 112.
Teniers, 47.
Tennyson, 40.
Tent, as represented in temples and palaces, 376, 377, 386.
Terborch, 307.
Terminal elocutionary stress, 16.
Terror as expressed in countenance, 173, 183–186, 188.
Testament of Eudamidas, picture, 74.
Texture, as represented in color, 306, 307; in drawing, 41, 42, 293, 294; in sculpture, 41, 303.
Theseus, Temple of, 34–36, 38, 42, 52, 84, 86, 322, 323, 380, 386, 387, 389.
Thoughts, as represented in art, 1, 2, 23–25, 214, 215, 226, 241; in buildings, 311–371; in paintings of animals, 262, 263; of landscapes, 259–262; of portraits, 268, 269; in pictures and statues, 239–253; in shapes and movements of men, 96–189; in shapes of nature, 59–96; in colors, 192–212, 291–310.
Threatening expressed in countenance and pose, 62, 65, 145, 167–171, 172, 183.
Thumb as representative, 123, 124.
Time as represented in painting, poetry, and sculpture, 245–251.
Tissington Spires, landscape, 65, 66, 67, 70, 72, 259, 399.
Titian, 46, 227, 255, 295, 305.
Titus, statue, 281, 282.
Tomassee, 118.
Tomb, of Giuliano de' Medici, 50, 301, 302; Rock of Myra, 315, 316, 375, 376, 387, 397, 403, 407.
Tone, 18; as color, 192; correlated to color, 195–198; in elocution, 196; mixed, 207.
Torch, Representation of, in painting, 300.
Torso, as representative, 110, 123, 126, 142, 144, 145, 147.
Touch, in painting, 15, 16, 19, 21, 42–48, 55; in sculpture, 48–51.
Tower or towers, 327, 330, 349, 355, 357, 358.
Traditional in Architecture, 406.
Trees looking like columns and arches, 32, 33, 84, 398, 399, 403.
Triangle, 56.
Trinity, Church, Boston, 35, 53, 54, 84, 323, 334, 380; School, New York, 323, 362, 363, 369.
Triumph as expressed in the countenance, 179.
Trochee, poetic measure, 57.

Troyon, 307, 308.
Trumpet, resembling red color, 201.
Tudor Gothic, 380.
Tunes of verse, 18.
Turner, 73, 260.
Turrets, 331, 332, 355, See Towers.

Ugly or ugliness, 97–99, 102, 103.
Unamiable suspicion expressed in countenance, 171, 177.
Unconfiding pride expressed in countenance, 167, 176, 177.
Unconscious, The, expressed in human form, 61, 126.
Unconstrained, The, expressed in human form, 61, 133.
Uniformity, in colors, 199 ; in sky-line of street and institutional architecture, 362–364, 366, 367, 370 ; not necessary to beauty or regularity of countenance, 100–103.
Unity of style in groups of buildings, 367.
University, of Chicago, 367, 380 ; of Pennsylvania, 327, 329, 331, 355, 371 ; at Sydney, 84, 324, 349, 351, 352, 355, 359, 360, 362, 369, 380.
Unsubstantiality as represented in size, 26.
Unsustained expression, 30, 311–314.
Unter den Linden, Berlin, 344, 360, 364.
Upward movements of gesture, 129, 134, 135, 148–154 ; of eyes, 171, 174.
Useful feature, how developed into artistic, 318.

Valmarina Palace, 324, 326, 348, 358, 380.
Value, in buildings, 366 ; in drawing, 304 ; in colors, 303, 304, 306, 309.
Van Beers, 270, 271, 273.
Van Dyke, J. C., 292, 300, 301.
Vanishing-point in painting, 91, 298.
Variety of color, excitation in, 194, 195–208 ; desirable and attainable in groups of buildings, 367, 369.
Vatican, 247.
Velasquez, 48.
Velletri, 47.
Ventilator on roofs, 331, 332.
Venus, Earlier dignity of statues of, 225.
Venus, de' Medici, 76, 77, 138, 142, 223, 225, 281 ; Leaving the Bath, 76, 223, 225, 281, 282.
Veronesi, P., 72, 276.
Vertical lines, as representative, 66, 67, 73–75, 78, 84, 90, 97, 187 ; in face, 166 ; in gestures, 150, 151, 152.
Verticality, 378.
Visible, foundation, 322 ; representation, 1, 2, 23–38 ; roof, 359, 360, 362 ; walls, 323.
Vital expression in movements of body, 128, 133, 142, 144, 168–191 ; temperament, as manifested by breadth of figure and face, 108–118 ; of hand, 121–124. See Physical.
Vocal utterance, 2, 7.
Voice in speech, 7.
Von Schadow, 228.

Wagner, iv, 402, 405.
Walls, blank, 343 ; made representative, 38, 323–352.
Walker Museum, Chicago University, 367, 369, 380.
Walking, Expressiveness of, with breast and brow in advance, 145, 147, 148, 169, 172 ; with face, 148, 167, 171 ; upright, 149, 151, 169.
Warm colors, 195–212.
Water Color Exhibition, cover of catalogue, 232, 233.
Waves, Colors of, 300.
Weakness, Representation of, in size, 16, 25 ; in smoothness, 49 ; in relief, 50.
Weight, Representation of, in size, 24.
Wells Cathedral, 203, 205, 380, 405.
Werner's Magazine, 116.
West, B., 226, 228.
Westminster Abbey, 380, 403–405.
Whew, Pointing of lips on uttering, 182, 184.

Whispers, representative in elocution, 196, 207–210.
White, color, 203, 204, 207, 210, 211; for buildings, 204; marble for statues, 203.
Whitney, 7.
Width, Effect of, lessened by largeness of environment, 32; by height, 34, 35; in doors representative of, 38.
Wild Boar, picture, 47.
Wilde, O., vii.
Willems, F., 226, 307.
Will-power, as represented, 19.
Windows made representative, 38, 342, 349, 352.
Winkleman's Ancient Art, 73.
Woman Taken in Adultery, The, picture, 129, 139, 140, 155, 158, 161, 168, 174, 186, 276, 287.
Wonder as expressed in countenance, 184.
Wood in buildings as represented in stone, 315–317, 375, 376, 378, 407, 408.
Woods, Scene in the, 32, 33, 73, 399.
Words, Origin of, 4–7.
Wordsworth, vi.
Wouverman, 262.
Wright of Derby, 131.
Writing, as separated from art in Egypt, 221; in Greece, 222; early methods of, 216–221.
Wyatt, 225, 315.

Yankee Sullivan, 115, 119, 124.
Yellow, Book, 234, 236; color as representative, 195, 197, 198, 200, 210, 220.
Yenouge, 93.
Yerkes, C. T., 270, 271.
Yielding as expressed in smooth surfaces, 49.

Zouaves, color of uniform of, 200.

00063915

POEMS BY PROF. GEO. L. RAYMOND

A Life in Song. 16°, cloth extra, gilt top $1.25

"Mr. Raymond is a poet, with all that the name implies. He has the true fire—there is no disputing that. There is thought of an elevated character, the diction is pure, the versification is true, the meter correct, and . . . affords innumerable quotations to fortify and instruct one for the struggles of life."—*Hartford Post.*

"Marked by a fertility and strength of imagination worthy of our first poets. . . . The versification throughout is graceful and thoroughly artistic, the imagery varied and spontaneous, . . . the multitude of contemporary bardlings may find in its sincerity of purpose and loftiness of aim a salutary inspiration."—*The Literary World* (Boston).

"Original and noble thoughts, gracefully put into verse. . . . Mr. Raymond thoroughly understands the true poet's science, man."—*The Literary World* (London).

"Here, for instance, are lines which, if printed in letters of gold on the front of every pulpit, and practised by every one behind one, would transform the face of the theological world. . . . In short, if you are in search of ideas that are unconventional and up-to-date, get 'A Life in Song,' and read it."—*Unity.*

"The poet has 'a burden' as conscious and urgent as the prophet of old. His is a 'story with a purpose,' and very deftly and effectively is it sung into the ear of the captivated listener. . . . Wonderful versatility and mastery of the poetic art are shown in the manipulation of speech to the service of thought. . . . Professor Raymond has revealed a metrical genius of the highest order."—*The Watchman.*

"A remarkably fine study of the hopes, aspirations, and disappointments of . . . an American modern life. . . . Is not only dramatic in tendency, but is singularly realistic and acute. . . . The volume will appeal to a large class of readers by reason of its clear, musical, flexible verse, its fine thought, and its intense human interest."—*Boston Transcript.*

Ballads, and Other Poems. 16°, cloth extra, gilt top . . $1.25

"Notable examples of what may be wrought of native material by one who has a tasteful ear and practised hand. . . . There is true enjoyment in all that he has written."—*Boston Globe.*

"A very unusual success, a success to which genuine poetic power has not more contributed than wide reading and extensive preparation. The ballads overflow, not only with the general, but with the very particular truths of history."—*Cincinnati Times.*

"A work of true genius, brimful of imagination and sweet humanity."—*The Fireside* (London).

"Fine and strong, its thought original and suggestive, while its expression is the very perfection of narrative style."—*The N. Y. Critic.*

"Proves beyond doubt that Mr. Raymond is the possessor of a poetic faculty which is worthy of the most careful and conscientious cultivation."—*N. Y. Evening Post.*

"A very thoughtful study of character . . . great knowledge of aims and motives. . . . Such as read this poem will derive from it a benefit more lasting than the mere pleasure of the moment."—*The Spectator* (London).

"Mr. Raymond is a poet emphatically, and not a scribbler in rhyme."—*Literary Churchman* (London).

The Aztec God and Other Dramas. 16°, cloth extra, gilt top . $1.25

"The three dramas included in this volume represent a felicitous, intense, and melodious expression of art both from the artistic and poetic point of view. . . . Mr. Raymond's power is above all that of psychologist, and added thereto are the richest products of the imagination both in form and spirit. The book clearly discloses the work of a man possessed of an extremely refined critical poise, of a culture pure and classical, and a sensitive conception of what is sweetest and most ravishing in tone-quality. The most delicately perceptive ear could not detect a flaw in the mellow and rich music of the blank verse."—*Public Opinion.*

". . . The plot is exceedingly interesting and well executed. . . . It is careful work, strong and thoughtful in its conception."—*Worcester Spy.*

"As fine lines as are to be found anywhere in English. . . . Sublime thought fairly leaps in sublime expression. . . . As remarkable for its force of epigram as for its loftiness of conception."—*Cleveland World.*

"There are countless quotable passages in Professor Raymond's fine verse. . . . The work is one of unusual power and brilliancy, and the thinker or the student of literature will find the book deserving of careful study."—*Toledo Blade.*

". . . 'Columbus' one finds a work which it is difficult to avoid injuring with fulsome praise. The character of the great discoverer is portrayed grandly and greatly. . . . It is difficult to conceive how anyone who cares for that which is best in literature . . . could fail to be strengthened and uplifted."—*N. Y. Press.*

Dante and Poetry. Just issued. 16°, cloth extra, gilt top $1.25

G. P. PUTNAM'S SONS, New York and London.

The Essentials of Æsthetics. 8vo. Illustrated . . Net, $2.50

This work, which is mainly a compendium of the author's system of Comparative Æsthetics, previously published in seven volumes, was prepared, by request, for a text-book, and for readers whose time is too limited to study the minutiæ of the subject.

"We consider Professor Raymond to possess something like an ideal equipment. . . . His own poetry is genuine and delicately constructed, his appreciations are true to high ideals, and his power of scientific analysis is unquestionable." . . . He "was known, when a student at Williams, as a musician and a poet—the latter because of taking, in his freshman year, a prize in verse over the whole college. After graduating in this country, he went through a course of æsthetics with Professor Vischer of the University of Tübingen, and also with Professor Curtius at the time when that historian of Greece was spending several hours a week with his pupils among the marbles of the Berlin Museum. Subsequently, believing that all the arts are, primarily, developments of different forms of expression through the tones and movements of the body, Professor Raymond made a thorough study, chiefly in Paris, of methods of cultivating and using the voice in both singing and speaking, and of representing thought and emotion through postures and gestures. It is a result of these studies that he afterwards developed, first, into his methods of teaching elocution and literature" (as embodied in his 'Orator's Manual' and 'The Writer') "and later into his æsthetic system. . . . A Princeton man has said of him that he has as keen a sense for a false poetic element as a bank expert for a counterfeit note; and a New York model who posed for him, when preparing illustrations for one of his books, said that he was the only man that he had ever met who could invariably, without experiment, tell him at once what posture to assume in order to represent any required sentiment."—*New York Times.*

"So lucid in expression and rich in illustration that every page contains matter of deep interest even to the general reader."—*Boston Herald.*

"Its superior in an effective all-round discussion of its subject is not in sight."
The Outlook (N. Y.)

"Dr. Raymond's book will be invaluable. He shows a knowledge both extensive and exact of the various fine arts and accompanies his ingenious and suggestive theories by copious illustrations."—*The Scotsman* (Edinburgh).

Published by G. P. PUTNAM'S SONS, 27 West 23d St., New York.

The Psychology of Inspiration. 8vo . . . . Net, $1.40

An attempt to distinguish Religious from Scientific Truth and to Harmonize Christianity with Modern Thought.

Dr. J. Mark Baldwin, Professor of Psychology in John Hopkins University, says that its psychological position is "new and valuable"; Dr. W. T. Harris, late United States Commissioner of Education, says that it is sure "to prove helpful to many who find themselves on the border line between the Christian and the non-Christian beliefs"; and Dr. Edward Everett Hale says "no one has approached the subject from this point of view."

"A book that everybody should read. . . . medicinal for profest Christians, and full of guidance and encouragement for those finding themselves somewhere between the desert and the town. The sane, fair, kindly attitude taken gives of itself a profitable lesson. The author proves conclusively that his mind—and if his, why not another?—can be at one and the same time sound, sanitary, scientific, and essentially religious."—*The Examiner*, Chicago.

"It is, we think, difficult to overestimate the value of this volume at the present critical pass in the history of Christianity."—*The Arena*, Boston.

"The author has taken up a task calling for heroic effort; and has given us a volume worthy of careful study. . . . The conclusion is certainly very reasonable."
Christian Intelligencer, New York.

"The author writes with logic and a 'sweet reasonableness' that will doubtless convince many halting minds. It is an inspiring book."—*Philadelphia Inquirer.*

"Interesting, suggestive, helpful."—*Boston Congregationalist.*

"Thoughtful, reverent, suggestive."—*Lutheran Observer*, Philadelphia.

Published by FUNK & WAGNALLS COMPANY, 44 East 23d St., New York.

The Orators' Manual, a Text-Book of Vocal Culture and Gesture . . . in constant demand for years. . . Net, $1.12

The Speaker, a Collaborated Text-Book of Oratory. . . Net, $1.00

The Writer, a Collaborated Text-Book of Rhetoric. . . Net, 90 cts.

Published by SILVER, BURDETT & COMPANY, 231 West 39th St., New York.

Digitized with financial assistance from
Observer Research Foundation
on 01 June, 2019